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A CRITICAL UNDERSTANDING OF TECHNOLOGY AND EDUCATIONAL DEVELOPMENT: A CASE STUDY OF THE KOREAN EDUCATIONAL DEVELOPMENT INSTITUTE

by

(C)

IL JE SUNG

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF DOCTOR OF PHILOSOPHY

Department of Secondary Education

EDMONTON, ALBERTA

Fall 1986

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Abstract

This study grew out of a concern about the orientation of educational research and curriculum development activities of the Korean Educational Development Institute (KEDI). This concern led to the identification of two concepts which undergirded the founding of the institution: "technology" and "educational development."

Hence, the study was guided by two related questions: "How should Korean educators and educational researchers understand the present technological era in terms of educational development?" and "What is the best way for KEDI to understand educational development in the technological context of the East and the West?"

These questions led the researcher to employ a dialectical approach for the understanding of the case, the KEDI situation. The search for the understanding of the meaning of technology and educational development urged the researcher to consider (1) the historical context of KEDI and Korean education, and (2) the historical, cultural and philosophical context of the traditions of the East and the West.

The study disclosed the unreflective acceptance on the part of Korean educators of Western understandings of technology and educational development. Further exploration within the dialectic of the traditions of the East and the West enabled the accommodation of complementary understandings that move beyond the polarized understandings of technology and development.

The study concludes with personal reflections and suggestions for possible new directions for KEDI.

Acknowledgement

First of all, I dedicate this dissertation to my ancestors.

The most heartfelt thanks is due to Dr. Ted T. Aoki, my advisor, who made my life more meaningful and without whom it was impossible to think of undertaking this study.

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1. Introduction

A. Questions Guiding the Study

The main question of the study can be put in two ways, one is abstract, the other is concrete: "How should Korean educators and educational researchers understand the present technological era in terms of educational development?" or to make it more concrete, "What is the best way for the Korean Educational Development Institute (KEDI) to understand educational development in the technological context of the East and the West?" The first question led to the second and the latter, in order not to be confined to too narrow a scope, needs to remain open toward the abstract. The question is situated in the context of Korea as a developing country, and in Korean educational development that has been fashioned over the last three or four decades. Particularly, the latter question emerges from the concerns for the understanding of "technology" and "development" that undergird the founding of KEDI and the curriculum centered activities of the institute.

As is the case in most other developing countries, national development came to be equated with economic development and has become an important goal of Korea. Korean education has been directed toward, and made conducive to, the goal of national development. The establishment of the Korean Educational Development Institute (KEDI) reflects such an endeavour. While Korean education has striven for the strengthening of "educational power" (a term that KEDI people prefer most recently) in terms of its quantity and quality similar to that in the Western world, particularly the United States, it has come to face a number of educational issues.

The study begins by questioning such general trends of development in the Korean context with an interest in understanding the situation and by so doing provide a basis for suggesting future directions for Korean education. Thus, the main concerns in the study are: firstly, to seek insights into the fundamental educational problems in Korea as a developing country by attentively understanding KEDI; secondly, to seek a critical understanding of

technology and development embodied in Oriental and Occidental history and culture with an interest in reformulating the concept of educational development; and finally, to suggest a way to accommodate a more valid concept of educational development at KEDI.

Some initial questions which may assist in the study are as follows: How did the founders of KEDI understand educational development at the time of the establishment of KEDI? In the missions KEDI has undertaken, how has curriculum "research and development" been understood? How has Western technology been understood at KEDI? Is there a tradition in Korea that understands technology and development in a way different from the West? Should we in Korea reformulate our understanding of educational development?

B. Focal Point of Study

The focal point of the study is 'KEDI' as a concrete 'case' of Korean education. KEDI is situated in the 'Korean historical and cultural context.' Its main interest is 'educational development' which is situated in a broader technological context. Korea itself has been situated traditionally between China and Japan, but now is seen as a merging point of the East and the West in the broader world context. We can no longer, therefore, approach the problem only from within the limited boundary in which the focus has been situated. We need to study the situation from within and from without. We need to understand the situation in a concrete, particular, and at the same time in a broader, abstract context.

The broader question of "How should Korean educators and educational researchers understand the present technological era in terms of educational development?" is again extended to such questions as: "What really is human life, or the meaning of life?" "What is education?" "What is Korean history or culture?" Because without some broader understandings, answers to the original question cannot be acquired, or else, answers would be without root. The question "How shall we understand?" can and should not be divorced from the question "How shall we live?"

The study is, in part, an endeavour to find an authentic meaning for education in a dialectical context between the East and the West. The study itself can be seen as a process of learning not merely the Western theories, philosophies, culture or whatever, but also the Eastern roots in which the question is situated. It is a way of understanding KEDI itself through others, clearing its vision of closeness through furtherness, expanding its horizon through meeting other horizons, and with these elaborated horizons reflecting and insighting upon the meaning of education within which KEDI is to be situated. These reflections and insights are meaningful when rooted in and when they emerge from the lived experiences of the people and KEDI itself. It is also an endeavour of acquainting 'man with himself' or the institution (KEDI) with itself. Dilthey said:

> Only from his actions, his fixed utterances, his effects upon others, can man learn about himself; thus he learns to know himself only by the round-about way of understanding. What we once were, how we developed and became what we are, we learn from the way in which we acted, the plans which we once adopted, the way in which we made ourselves felt in our vocation, from old dead letters, from judgements on us which were spoken long ago... we understand ourselves and others only when we transfer our own lived experience into every kind of expression of our own and other people's lives. (in Stake, in Simons(ed.), 1980: 65)

Regarding the lived world, as it relates to curriculum, Aoki recently introduced two concepts in an address to CACS (Canadian Association for Curriculum Studies, 1985); "the first order curriculum world" and "the second order curriculum world" -- the former being "curriculum-as-lived" and the latter "curriculum-as-plan." In this juxtaposition, we can substitute other words for "curriculum" such as "education" or "knowledge." This study acknowledges that the question is, and should be, situated in the first order world which is composed of the lived experiences of people and their meanings of life. Then, the questioning needs to be extended, in this study, to the Eastern and Western context.

Throughout human history, the most significant watershed between the East and the West appears dramatically in two contradictory sayings which have exercised great influence on their histories. The Bible (John 1:1) said, "In the beginning was the Word, and the Word was with God, and the Word was God.". On the other hand, Lao Tzu (Tao Te Ching 1:1) said, "Tao cannot be expressed in words, therefore the Tao expressed in words is not Tao in its true

sense, the same is true with things." Thus he defied the fictitiousness of words, expounding the limits of words and advocating the virtue of silence.

It is interesting to note that these two sources have different origins, the former emerging out of the notion of 'chaos' which in turn needs to be ordered or directed, and the latter out of the notion of 'nothingness' from and to which everything comes and goes.

Since then, the two different cultures or civilizations appear to have been bifurcated; the former, based on logos, rationale, human will and science; the latter, based on mystique, non-rationality, cosmological will and intuition. Paradoxically, the latter is very religious in character while the former is not, but in reality the case has been the reverse. But if we follow the principle of necessity, it may be a natural phenomenon. For in the Orient they might not have needed to have religion because they were already immersed in a most religious ambiance. Whatever the causes, one has been made the world of the word; the other of reticence. The one developed phonetic language; the other ideographic (Chinese). The one wove a tumultuous history and experienced seemingly great changes; the other a comparatively quiet one which remained more or less the same until very recently.

This dichotomy in part has led to the polarization of different expressions, e.g., developed/underdeveloped, rich/poor, North/South, the first world/the third world, advanced/retarded, progressed/non-progressed, strong/weak (which may also lead to oppressor/oppressed), which virtually means the relationship between the West and the rest of the world. But this dichotomy whose origin is the word entails the logic of the word with its implied interest in reasoning that tends to differentiate things in the form of either/or. In contrast, the world of reticence, whose origin is nothingness entails a different logic, a logic of dialectical reasoning that tends to see things in the form of unity or wholeness of contradictions.

It may be true that along with the evolution of modern civilization (which brought unprecedented material well being to human life) came conflicts -- devastating wars, massacres, large scale exploitation, espionage, starvation, etc. These can only be expressed by

such words as "atrocious," "anormal" and "infernal." These phenomena are by and large related to the problem of technology and development, which again relates to the question of educational development.

C. Toward Understanding "Understanding"

Related to the question, the other aspect this study should be concerned with is "understanding." It is a question of epistemology and ontology, and as well a question about the nature of knowledge. Polyani provides a clue to this question:

> ... Polyani distinguished between propositional and tacit knowledge. Propositional knowledge -the knowledge of both reason and gossip- was seen to be composed of all interpersonally shareable statements, most of which for most people are observations of objects and events. Tacit knowledge may also dwell on objects and events, but it is knowledge gained from experience with them, experience with propositions about them, and rumination.... It is that [tacit knowledge] which permits us to recognize faces, to comprehend metaphors, and to "know ourselves." Tacit knowledge includes a multitude of unexpressible associations which give rise to new meanings, new ideas, and new applications of the old. (in Stake, 1980: 66)

Stake argues that tacit knowledge is the basis upon which to build new understandings and from which mighty explanations are made. He distinguishes between 'explanation' and 'understanding,' and argues that the former belongs more to propositional knowledge, the latter more to tacit.

There are other notions of knowledge or ways of understanding. Aoki distinguishes three different modes of knowing; "technical," "situational" and "critical." (1979) Michael Bopp (1985:191) suggests three categories of knowledge; "historical-hermeneutic," "phenomenological" and "religious."

Oriental notions of knowledge are also different. In Buddhism, according to Amnuay Tapingkae (1971), knowledge is divided into two categories; conventional and enlightened. In the former there are three layers of knowledge; from the bottom of the hierarchy: scientific knowledge, artistic knowledge, and ethical knowledge. And the highest of all is enlightened knowledge which is gained only by intuitive vision through meditation. Confucius also differentiated four categories of knowing or a knowledge hierarchy; (again from the bottom of

the hierarchy) analytic or categorical knowledge, knowledge control (rational?), praxical knowledge, and insight or enlightenment knowledge (that is coming to the 'right heart'). (Great Learning, chap. 1) According to Siu (1957: 69-83), Taoists identify three categories of knowledge; rational, intuitive and no-knowledge. Siu introduces an old Oriental adage; "The Sage does not talk; the Talented Ones talk; the Stupid Ones argue." (Ibid: 56)

Whether or not one should assume a knowledge hierarchy as in the Orient, or what one assumes to be more desirable knowledge, may be another question. However knowledge is understood, it may be true that man's knowledge is in principle incomplete. What man can do, then, may be only to follow the unending process of pursuing knowledge toward deeper and broader understanding. At least, these different notions of knowledge enable us to be cautious about insistence on the "one way" of knowing or understanding. They suggest to us that there are different ways of understanding a phenomenon, and that in order to understand a phenomenon deeply and genuinely, we need to scrutinize it from as many different perspectives as possible. Here lies the need for a dialectical approach. By dialectic we may be able to 'see into' a phenomenon that becomes visible beyond its superficial appearance. By dialectic we may extend our understanding to insight, a deep seeing into, which allows us to pass beyond the world of opposites, to overcome the gap between rational, analytic thinking and the meditative experience of the 'unknown' truth. Heisenberg (in Capra, 1975: 10) said: "It is probably true quite generally that in the history of human thinking the most fruitful developments frequently take place at those points where two different lines of thought meet."

But this dialectic, as in Bachelard(in Kockelmans et al., 1970), need to be based not merely on the principle of contradiction, but also on the principle of complementarity.

> Bachelard is of the opinion that in philosophy of science one finds oneself mostly before an insoluble dilemma. The philosophers limit themselves to considering general principles whereas the scientists confine themselves to describing highly speicalized results. Many philosophers ... find themselves faced with the dilemma of an aprioric knowledge of the general and an aposterioric knowledge of the immediately given and do not pay enough attention to the most important trait of contemporary science, namely, the continuous interchange of rational and experimental results -- between the a priori and the a posteriori, between rationalism and empiricism within the actual scientific praxis itself.... This is why philosophy of science develops dialectically in the continuous interchange of these rational and empirical elements, without ever reaching

an absolute and final point. (Kockelmans et al., 1970: 314)

D. Approach to the Study

This study begins with an interest in understanding and improving a concrete institution, KEDI, and tries to review it from a critical perspective of technology and development embedded in the dialectic context of the East and the West, and aims to return to the case with some suggestions for its future direction. In this sense, the approach adopted in this study can be said to have two features: a historic review and a case study. But if we conceive of a 'case,' be it a person, an institution or a nation, as an eventual historic product, or think that a "case study might be seen in the context of an historic or interpretive tradition" (Adelman C. et al., 1975: 143), these two then would converge into one.

Therefore, when considering the significance of technology and development seized in this study, I am inclined to study the case not only within its own historicity but also in a broader view of historic inevitability for its birth and development. The historic review will be focused on how the East and West have been differentiated in terms of philosophical underpinnings, societal and political backgrounds of technology and development in relation to education, and will mainly be based on the review of literature.

This study acknowledges that understanding social or human phenomena should be grounded in the real life world. Understanding should 'stand under' human experiences. The main question of the study is somewhat broad and abstract but very crucial in the present Korean situation. By grounding the question 'under' the case of KEDI, the researcher intends to understand the question investigated in the study from within and from without. It may be said that the study seeks to portray the case in its life world and by so doing to provide conditions from which insight toward the question may be aroused. Along with other merits embedded in the recent trend towards situational studies, the case study is conceived by the researcher as appropriate for this study.

While a case study includes such methods as observation, interview, audio-visual recording, field note taking, document collection and analysis, confining the method to document analysis only seems to be a defect in this study. But, the fact that the researcher joined KEDI in 1976, four years after its birth, and is still associated with KEDI as a senior researcher, and has been acquainted with the details of the background and events during its inception, may give an advantage in this study. In this sense, the study includes the lived through experience of the researcher.

It is, needless to say, interpretive, providing a unique characteristic and strength. The study seeks insights into the future direction from within the case, with the hope that the insights provide suggestions of new directions for KEDI. By insight I am referring to the way in which the dialectic may provide us a way of "seeing into" a phenomenon that becomes visible beyond its superficial appearance. With insight, I believe, we can seek a deeper and broader understanding of the meaning of a phenomenon in accordance with an authentic world view.

Thus the dialectic should inevitably take the shape of a never ending spiral of opposite thoughts which begins with an interpretation of a specific situation, "a case," which is unique and independent. The same case can also be interpreted in many different ways by the persons involved. Then the case should claim its meaning or significance from no more than what it can say and can show itself. Yet, the study of a case should again be situated in a dialectic mode within the researcher's scheme of interpretation.

At the same time, it will be difficult to escape from the criticism that this study is based to some extent on hearsay or second hand information. But in this study, we acknowledge the fact that written documents are not always correct and exhaustive, and hearsay or background story handed down by word of mouth, especially in the anthropological-like studies, oftentimes are telling much truth. The subjective and intuitive features of case studies, therefore, are not only unavoidable but also very necessary in order to show the unique situation of each individual case.

A real problem may arise from that portion of the information the researcher brings in not based on documents but on lived experiences of the 'case.' To justify the handling of this information, the researcher needs to be mindful of the following. Firstly, the researcher has lived the experience and can tell his true story, be it exposed or tacit, as a witness or a lived participant of the case. Secondly, most key persons who are part of the study are alive; therefore, there is a way to confirm the truthfulness. Thirdly, the researcher as staff must return to KEDI with the results of the study which is purported to suggest the future direction of the institution. Therefore, it is difficult to expect him to say other than the truth since it will remain an open document. But this very openness may limit and constrain the researcher, who must respect and satisfy both the privacy of the people concerned and the purpose of the study. This problem eventually lies in the researcher's judgement.

Although case studies of KEDI have been done, they are fundamentally different from the present one. The study carried out by Morgan et al. (Systems Analysis for Educational Change: The Republic of Korea -Final Report- 1971), is heavily concentrated on the economic and manpower aspects of Korean education. This report was the founding stone for KEDI. The 'Analytical Case Study of KEDI' by the Masoner team which took three years (1975-1978) was conducted as an interim check of the organizational development according to the original plan scheduled in the loan proposal to USAID. Thus the study is based on the analysis of the status of KEDI, and intended (in my opinion) to provide justifications for Morgan's initial proposal and for a consistent R & D model for KEDI. Some results of these two studies are discussed in this study. The 'Measuring and Forecasting Educational Systems Effectiveness of the Korean Elementary and Middle School Development Project' done by Hyung Won Yoon (Ph. D. Dissertation, FSU, 1975) is limited only to the economic aspects of the E-M project.

A brief sketch of chapters follows: The next chapter outlines the context wherein the case is situated. Korean history and cultural background are described briefly with a central focus on Korean education. The third chapter deals with the case (KEDI). The organization is analyzed from the background of its establishment to the present states of educational research

activities in order to delve into the sub-questions addressed in the introduction. The fourth chapter reviews the Oriental and Occidental notions of technology, development and education for the purpose of understanding the problem in a broader context. Historical and philosophical underpinnings for understanding are searched in a dialectical fashion. Efforts are directed toward epistemological and underlying root aspects. The last chapter is a reflection. The Korean tradition and its importance to education are reviewed, as are the meanings of education in the merging context of the East and the West, and an understanding of education and educational development. Finally, some suggestions for KEDI 's future direction are made.

II. Korean Context

A. Korea : Its History and Culture

Brief History of Korea

Korea is geographically located between China and Japan, and partly touches the U.S.S.R.(Kamchatka) at its north-east tip. With the watershed at the top of its highest mountain, the Backdu, sitting slightly eastward from the center north of the peninsula, the two big rivers, the Aprock(the Yalu) which runs westward to the Yellow Sea and the Duman which runs eastward to the East Sea, make a natural demarcation between China and Korea.

From Busan, the second largest city in Korea, located at the south east end of the peninsula, Japan lies only 120 miles across the Korea-Japan Straits. The land of Korea, similar in shape to a rabbit, is thus bounded on three sides, east, west and south, by seas, and on the north side by the continent. When there were the Three Kingdoms in Korea, the northern one, Goguryeo, reached Manchuria. The unification of the Three Kingdoms by Silla in 669 A.D. changed the border to its present form.

This geopraphical "betweenness" or "bridge" tells itself, I think, most succinctly Korea's history and culture. While China had enjoyed its florescent civilization as the cultural center of the eastern hemisphere for about two millenia, Korea had been the main route of the cultural flux to Japan. Toward the end of the nineteenth century and early in this century, when Japan became strong and attacked China(Ching Dynasty) and Russia(Czarist Russia), Korea remained as a stepping stone for Japan during the two wars.

The Second World War occurred after Japan had already annexed Korea in 1910. It was the first time Korea, in its more than four thousand years of history, had ever been conquered by another country. Korea, since its written history started, has a record of being invaded more than 1000 times (roughly once every two years), mainly by China and Japan, but had never been completely conquered before 1910, and has no single record of invading other countries.

Korea, now divided into two, is still existing geo-poli-economically "in between" big nations; e.g., China, U.S.S.R., U.S. and Japan. In the Korean War in 1950, it became the battlefield not only between South and North Korea but also of the big nations: U.S.S.R. and China fighting with the north and sixteen U.N. member nations led by the United States with the south. Since the armistice in 1953, it has remained in the forefront of the cold war between the big nations, which drew an unprecedented iron curtain at the Demilitarized Zone for forty years compelling family separation of ten million people without any single news available to each other during the time[1].

The history of Korea dates back to the twenty-fourth century B.C. The legendary founder of the nation, Dangun, is said to have descended from heaven to establish a tribal state. For a long period of two millenia thereafter, the vicissitudes of various tribal states weave the story of ancient Korea.

The main current of Korean history begins with the appearance in the first century B.C. of the Three Kingdoms: Goguryeo, Bacgje, and Silla. The earliest of the Three Kingdoms was Goguryeo which occupied a large territory, covering Southern Manchuria and the present North Korea. This was followed by Bacgje in the south western area including the Han River valley and Silla in the south eastern area of the peninsula. In 669 A.D., Silla succeeded in unifying Korea and absorbed the territories, people and cultures of Goguryeo and Baegje. It was during the reign of Silla that Buddhism reached its flowering stage in Korea.

With the passage of time, the glory of the unified Silla gradually began to wane and in the year 935 A.D. Silla was finally replaced by a new dynasty called Goryeo[2]. Goryeo established a feudalistic structure of society and in the history of Korea, served as the bridge linking the preceding Silla with the succeeding Yi dynasty. Buddhism, without being disrupted by the fall of Silla, continued to flourish under Goryeo. During the Mongol invasion which started in 1231 and ended in 1270, the complete Buddhist scriptures, which were laboriously

---

[1]Family separations virtually started in 1945 in the vortex of after war conflict between the U.S. and U.S.S.R.

[2]It was from this word that the English name for the nation, Korea, originated.

carved on 81,258 wooden blocks, were printed to invoke divine intercession. Known as the Tripitaka Koreana, this monumental work is still extant as a major national treasure. In the latter days of Goguryeo, however, state-supported Buddhism grew so powerful and corrupt as to undermine the state itself.

Goryeo made a remarkable contribution to world culture by inventing a movable metal printer in 1234, some two-hundred years ahead of the European counterpart. It was also during the days of Goryeo that the world-famous Korean celadon ceramics reached their peak of development.

In 1392, Goryeo was succeeded by the Yi dynasty and the capital city was moved from Songdo to Hanseong which is now called Seoul. Mindful of the harm done by Buddhism to its predecessor, the Yi dynasty rejected Buddhism and elevated Confucianism to the position of a state religion. In order to encourage Confucian studies, the Yi dynasty established various academic institutions through the country, together with a government printing office which printed and distributed the Confucian classics. As a consequence, the tenets of Confucianism started penetrating into almost every aspect of Korean life, exerting many influences down to the present day. A great many cultural works of historical importance were produced during the first seventy years of the dynasty. The man most responsible for the brilliant age of culture, known as Korea's "Golden Age," was King Sejong(1419-1450) who, among other things, brought about the invention of the Korean alphabet, Han-geul, in 1446.

Shortly after, there were a series of Japanese invasions which (the most dreadful one was extended for six years from 1592 to 1597,) brought miserable devastation to the country including the loss of invaluable cultural treasures.

Cultural Background in Between China and Japan

The racial origins of the Korean people are obscure, but the primary stock is believed to be Tungusic, related to the Mongols with some Chinese mixture. Because they are known to have come down to the Korean peninsula on horseback, they are called a Horseback Ridden

Race. It is the most cogent theory among others that the main body of the Horseback Ridden Race settled in Korea and one part of it, perhaps the most courageous and adventureous group, crossed over to the Japanese archipelago and built a number of feudal states governing the aborigines.

It is an interesting or perhaps natural observation that among the same Horseback Ridden Race, the group that travelled the greatest distance retained a harsh and militant mettle longer than the early settlers in other areas where people were required to be domesticated to farming. History shows that among the Three Kingdoms, Silla, the farthest group, therefore, the latest settlers, kept the most fortitudinous character for longer than the other two and culturally most retarded while the Baegje, having rich and vast farming land and being close to China, was far advanced in cultural development. That may be the reason why Silla was able to unify the other two. If we accept the same race theory of Korea and Japan(at least for the leading group), this may explain why Japan remained culturally isolated for so long and so militant that it later tried to invade Korea so many times. But this explanation may be too simple.

Perhaps a more realistic explanation may be found in the fact that, though the same race flowed down to Korea and Japan and the two were no doubt under the strong cultural influence of China, some two thousand years of geo-sociological circumstances made the histories of the two nations different. For example, in Korea most mountains are flat and low with only three mountains over 2000m but less than 3000m in height(all three are in North Korea) and rivers are slow and shallow. In Japan, the mountains are high and steep with quite a few mountains over 3000m in height and rivers are naturally deep and swift. The high mountains and deep rivers and even numerous islands in Japan made natural demarcations between the feudal states. In order to protect their land and territory from either invasions of neighboring states or natural disasters like floods, they must have needed to develop fighting forces like the Bushito group and strong cohesiveness with a strict hierarchical structure within the group. It is known that in Japan there were some 280 feudal states before Toyotomi unified

Japan in the end of the sixteenth century.

In Korea, as the geography dictated, there are no places for either hiding from others or isolating any sector, with one exception, that of the north east area which is covered by high mountains. In order to govern the nation and facilitate cooperative farming, therefore, there might have been no choices but to develop a strong family structure and ties following strict Confucian precepts. It has been argued by some historians that Korea has been so easy to govern that there was no need for a strong government or army, instead strong moral codes based on Confucian and Buddhistic ethics developed. It is widely recognized, at least within Korean scholars, that in Korea Buddhism flourished more than in India and Confucianism was practiced more strictly than in China. In any event, the Korean attachment for their family names and trees is so unique and so strong that one would rather die than denigrate his family name[3].

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[3]Under the same family name, there may be different family trees according to the areas where these trees originated. There are two views concerning family trees: one is that the different family trees under the same family name are natural off-shoots of one family when extended; the other view is that when family names were given to everybody sometime in Goryeo dynasty(until that time only the nobilities had family names) people picked up popular ones and built their own family tree.

Thus the family tree refers to the specific area, usually the name of the village or the town, while family name denotes a general nomenclature. The large and popular family names like Mr. Kim, Mr. Lee or Mr. Park, therefore, have a number of family trees under the same family names, but the small and rare family names have one or two family trees. When people talk about genealogy, it refers to family trees. People used to recognize each other by their family name and at the same time family tree which tells whether it is a noble family or not. The nobleness depends on the family tradition and history but has nothing to do with the size of family name or tree.

For example, Mr. Lee, the second largest family name in Korea and being the royal family name in the Yi dynasty (Yi and Lee are the same in Chinese characters), has about two dozen family trees about a half of which, including the royal family tree, are known as noble but the rest are as rabble. It has long been a tradition that when people introduce themselves they are asked to present their family tree as well, so the family name used to go together with its tree. In most I.D. cards including the Denizen Registration Card (the most important I.D. card for Koreans and everyone over 18 years of age must always keep this card, but the card No. was given at the time of birth registration) and in whatever kind of application forms, a specifically designated space for family tree used to be followed by the name column, until the government prohibited by law to use the family tree column in any form in 1984, on the basis of promoting unnecessary partisanship. Marriage among those who have the same family name and the same family tree is still prohibited by law. There are cases in which they do not marry each other, not by law but by tradition, between those who have different family names yet the

Even now it is very natural for Koreans that whenever they have to swear an oath, they do so in the name of their family. The most poignant manifesto for a father to his prodigal son would be : "you are no longer my son and a member of this family." And the pride they have for their family trees is formidable to the extent that, as one story is told, a high civil servant when asked by the King which family trees were prestigious in the kingdom named without hesitation his own family tree prior to the royal one. There are some 250 family names in Korea.

To describe the different characteristics between Korean and Japanese, Kim Yeong Un at one point compared the metaphors of brush and sword[4]; Japanese noble families used to keep old family swords in the niches of their houses whereas Koreans cherished old stationery used by their ancestors. An interesting observation, he illustrates, may even be found in their cuisines; typical Japanese dishes like Sashimi or Sushi need to be cut sharply in order to give savour, but Korean ones like Bibimbab or Hot Soup need to be mixed together. Sashimi gives its best flavour when you eat it at the moment of catching the fish, but for Kimchi you have to wait until it is fully fermented. The other comparison may be found in representative words which are widely used in each country and characterize their different personality; "Assari" in Japanese means clear-cutness, "Han" in Korean means a heartburning out of feud, rancor or something regretful which is supposed to last even after death.

In Japan when there is a fight between either individuals or groups and the fight is over, then that is it. The loser immediately admits the defeat and changes one's hostility to respect toward the winner, eventually forming a new order of hierarchy or structure according to the results of the fight. Actually when children are involved in a fight and the one who is at the end of his tether declares "Gosang" which means surrender, then the fighting virtually stops. They must have established specific fighting ethics that once a fight is over the winner should show generosity to the loser and the latter respect to the former; if the winner continues

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[3](cont'd) same origin(the tree). For example, no marriage occurs between Changryoung (town name and also family tree name) Mr. or Miss Sung and Changryoung Mr. or Miss Cho.

[4]Which is the subtitle of his book, Japanese and Korean.

to attack the loser even after the latter surrenders, he is not qualified to be a winner because he failed to show generosity. The hidden interpretation is that he is not strong enough to be a winner. For the loser it is unthinkable to retaliate on the stronger one. So both sides "Assari" admit the situation as it appears. Another example is that when Japan was defeated in the Second World War, war time prime minister Suzuki told Yoshida, who became prime minister after the war; "We are defeated, therefore, we should not dismiss the attitude and behavior as a loser."(Kim, 1983:70)

But in Korea, even children's fighting style is quite different. In a word, there is in the upshot neither winner nor loser, simply because the loser never admits the defeat however seriously having been beaten[5]. Moreover, the typical fighting scene evolves something like this[6]: when two children start with a bicker which leads to a fight, they approach each other with their fists ready in a boxing style and glower at each other but never try to hit the other first, instead they try to enrage or pique the other side to strike first by saying such as "Hit me first!", "Hit me if you can!" "You a mouse!", "You shall die if you hit me!". And it goes on and on until no one knows who really started the first hitting or desisting from fighting. The underlying assumption of such behavior is, I think, that "I will and can retaliate only when you initiate the fighting but I will not take the disrepute that I started something bad first even though I may be in a disadvantageous position in the fighting, and (at least in that) I am infallible."

When a child starts crying himself, say to beg something, and if nobody cares, then he has to continue crying for the whole day or sometimes even on to the next day, simply because he can not find any reason which gives a 'justification' to stop. It may be more or less a universal phenomenon for children, more likely depending on individual differences, but I am describing a typical, not uncommon, character of Korean children.

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[5] Anyway they can not kill each other in children's fight. Here I am talking about the general trends of some decades ago, not the modern juvenile gangsters of both countries.

[6] There are though some regional differences within Korea.

Korean people traditionally tended to rely on "justifiable conduct" or "sense of justification[7]" or whatever they believe to be right, and hardly change their opinion once they happened to possess. They thought that the relationship between the King and the people was the same as that of parents and children. Therefore, loyalty to the King was essentially immutable just as filial duty should be.

Two historical events which are illustrated in the primary school textbook suffice to show that this is the case: Chung Mong Chu, one of the highest civil servants at the end of the Goryeo dynasty, was killed by the newly arising group for the Yi dynasty simply because of his unwillingness to change his loyalty for the old dynasty. The general trend of political power was already inclined to the new kingdom, and even the solicitor asked him not to change his mind or loyalty toward the new kingdom but simply to keep quiet. Yet he refused, knowing it meant his death. When Sejo, the seventh King of the Yi dynasty, usurped his young nephew, the sixth King Danjong, six high civil servants remonstrated Sejo's injustice to the end that they received the worst penalty possible, that of the death of three families, which meant the execution of all the family members, be they young or old, of one's own, mother's and wife's families.

During the middle of the Yi dynasty, when the factional strife was at a high pitch, Lee Kyeu was killed by Chung Chul. Since then some four hundred years passed; yet, the two family members, Kwangsan Lees and Youngil Chungs, still do not marry each other(Kim, 1983:14). There are many examples of family feuds or friendly relationships continuing from generation to generation. In the latter case, totally new faces after being identified, have become very close simply because their great great grand fathers were very close and left a will to keep close ties between these two families.

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[7]Suzuki termed it as "Name and Parts" translated directly from Chinese : The universe is governed by the laws of Heaven, so are human affairs; and these laws require of each of us to observe what is proper to him. He has a "name," he performs a certain "part" as he occupies a definite position in society, he is assigned a place where he is asked to render his service to a member of the group he belongs to. This network of social relationships is not to be ignored if the peace and happiness of its components are to be preserved and enhanced. The ruler has his proper duties to perform and his subjects theirs, parents and children have their well-defined obligations to each other, and so on. There ought to be no disturbance or usurpation of names, titles, and parts(Suzuki, 1973:53).

Ham Suk Heun, a living prophet and an intrepid historian, once told a story of what he saw himself as a child. When Japan virtually conquered almost every nook and cranny of Korea just before the annexation, a small village where he lived, not far from Pyongyang, heard that the Japanese troops were coming. Upon the decision to protect their village to the death, all male villagers, dressed in white, lined up hand in hand on the dike of the village and were sitting there with their eyes closed against the marching of Japanese troops armed with musket and bayonet. He bemoaned in anguish, "Should it be cried about or laughed at?"(Song Geun Ho, Biographies of Great Men in the Modern Korean History, 1982: chap. on Ham Suk Heun).

Through the long history of being invaded by external forces and being exploited by corrupted civil servants, therefore a history of destitution and affliction, the populace might have easily accepted the Buddhistic notion of the next life which would have provided them some psychological resort. The notion that the next life depends on good deed during one's present life, coupled with Confucian ethics, must have brought to them not only high moral codes but also unique consciousness of justification and allegiance which, as shown in the examples above, are tenaciously held by the Korean people.

The "Han," perseverance and the strong family tie which is extended to one's defunct ancestors, may also be explained as sediments resulting from a history of long unsatisfactory circumstances, with which they could have a hope for recovering sometime in the future. It is perhaps natural, as a compensation for such conditions, that they could develop such optimistic, pliable yet unflinching, courteous and persevering characters out of a fatalistic philosophy of the Orient. These characteristics or spirits, some historians argue, not only have been a hope for the future but also formed the very undercurrent power for Korean history itself.

If the Japanese are said to be practical and hardheaded, the Koreans are ideological and tenacious. It may as well be expressed in the ways in which they accept Western technology.

The relationship between Korea and China had not been bad even though China attacked Korea numerous times. The reason was that because the two countries made a kind of brother relationship after the Three Kingdoms period, China's attack was interpreted not as an intention of total conquering(though there were a number of critical moments of conquest) but as a warning for neglecting a young brother's duty. Considering the fact that China itself was big enough as a nation, perhaps too big to govern, and Korea was a small and peaceful country which had been submissive to and never bothered China, there might have been little reason for China to annex Korea. Besides there had always been safety devices established through either strategic marriages between royal families or holding Korean princes as hostages.

Furthermore the Korean attitude, be it voluntary or enforced, was to readily accept the Chinese model in most areas such as culture, religion, literature, political or social system and education. It must be true that Koreans admired the civilization of China for long and tried to adopt it as much as possible. One clear example appeared in their language usage. Koreans from the beginning have had their own language which is quite different from Chinese, but they have since borrowed more than fifty percent of their total vocabulary from the Chinese, which if written in Chinese characters convey the same meaning even though they are read differently.

Even though Korea developed its own characters, the Hangeul, more than five hundred years ago, the official characters had been completely Chinese until the end of the Yi dynasty. The Koreans appreciated the Chinese characters, the Hanmoon, which is more difficult to learn than the Hangeul. They even degraded their own characters by saying that the Hanmoon was for the literati and the Hangeul was for the populace and women. It is well expressed in the preamble of the promulgation for the Hangeul; "In order for the illiterate populace and women to learn more easily, hereupon we promulgate the Hangeul which, being suitable to our own language, is easy to learn...."

Recently the official characters of Korea are purely Hangeul and the government limited the number and usage of Chinese characters by putting the characters in parenthesis in all the textbooks under the high school level. But most of the newspapers and other books use a

mixture of both characters.

Since the beginning of this century especially when Japan controlled Korea, there has been a strong criticism upon our own history of toadyism to the stronger, particularly to those who helped the Japanese government, which, they cynically remark, is an ingrained national disposition. So their blame goes to the pusillanimous ancestors who used to do the same thing to China. It is a natural target of the same criticism upon those who are inclined towards the United States after the Korean liberation from Japan.

For these critics this subservient character to the more powerful is the main reason that this country is always under the control of other powerful nations. Yet, there are other critics whose views are different; they emphasize the historical conditions upon which they had no choice but obedience to the powerful in order simply to survive, especially in the situation where a modicum of land like a hump is attached to the giant China which could have snuffed it out anytime if she wished to do so. Therefore, they rather admire the wise political choice made by the ancestors who in turn had to endure all kinds of indignities to keep this nation surviving.

But recent critics who are concerned more about the present relationship with the United States argue that Korea, since the unification of the Three Kingdoms[1], has kept its name as a nation but has never been completely independent. In order for a nation to be called as an independent one, they say, it should have freedom to make decisions of its own, be they political, military or economic. In this sense for the past 1300 years since unified Silla, Korea has always been dependent on various strong nations.

In any case, there is a general consensus on the fact that Korea has been able to survive not because of its rulers but because of its populace. Numerous historical events support this. Whenever there were foreign invasions, the main fighting forces were the general populace consisting of farmers or monks[2], and the only strategy for rulers was to escape.

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[1]Silla was able to do this with the help of Tang China.
[2]They used to have a small number of armies.

From the line of such criticism, there recently emerged a strong voice for redefining and restoring Korea's own identity as a cultural ethnicity. Whatever it may mean by "identity" or "cultural ethnicity," whatever-form of polity it might have been, dependent or independent, the voice, I think, is the endeavour to try to find a place and meaning of life for the Korean people.

One can write one's own biography in a beautiful way, embellishing here, coloring there, exaggerating glorious parts and tailing off shameful ones. One can even rewrite a totally different one; yet by writing one cannot change the biography itself and more importantly its meaning to oneself. Rather, the more artificially one writes, the bigger void of meaning one finds. By extending personal biography to the national level, it may become obvious that the same conclusion can result with its history.

Setting aside the arguments of how we should view history, which itself is a controversial issue, some may insist that emphasizing glorious parts and diminishing the other ones in history is to help give a bright future to the young generation. Then, the problem comes from the question of what "glorious" or "bright future" really means. We might ask, is this historian's view applicable or healthy to apply to a personal case? Some psychoanalysts may say yes. I do not see any benefit in such a historian's view for finding the meaning of life, be it an individual's or a nation's.

Among the three nations, China, Korea and Japan, Korea until now has the saddest history. And it is true that through their long histories these three have been actively interacting and exchanging with one another. While there are differences in their history, culture and personality, compared to the other parts of the world there are more commonalities than differences among them as they share a similar cultural background. Their religions and, most importantly, the use of the same Chinese characters provide the bases for their common consciousness structure.

Korea has been exposed to the Western world only from the beginning of this century, at first indirectly through Japan and after the end of the Second World War directly through

the United States. As the speed of change has been accelerated in modern times, the changes that occurred in the last less than hundred years in Korea are no doubt enormous compared to that of two thousand years earlier. But the amount of change that took place during the first half of the period(from the end of the 19th century to 1945), though conspicuous in appearance, can be said to have been marginal or limited to a specific group of people compared to the changes that occurred after 1945. The reason was that in the former case the changes were brought or rather enforced by the oppressor, which therefore were not welcomed by the hearts of the populace, whereas in the latter the influence was overwhelming like a submerging flood because they were brought by the benevolent savior, as the United States was thought of by most Korean people.

The main concern is that whether the Korean consciousness, consolidated through a number of thousand years of rather steady history, could come to terms with what appeared to be the best fruit of the "most developed civilization" rooted in a totally different history. It is common sense that a plant does not grow where the soil and climate do not fit. But technology brought some changes in this common sense by showing that there are possibilities of growing different plants in a different soil and climate by ways of grafting, transplanting or manipulating other necessary conditions. In fact, in a greenhouse you can see growing many kinds of plants from any corners of the globe.

With the help and hope of technology, Korean leaders and the other well intended people have tried to implant whatever appeared "good" to them in the name of development or modernization in the soil of Korean culture. It is a critical moment, I think, for both groups of people to consider sincerely what kinds of "plants" are and are not possible to grow in the soil of the Korean context, based on a collected wisdom, intuition or the result from the past experiences.

B. Traditional Background for Educational Philosophy

Korean View of Man and Traditional Education

The first formal educational institution, Taehag, was established in the second year of King Sosurim (372 A.D.) in Goguryeo dynasty (The Ministry of Education, Education in Korea, 1978:15). Since then various kinds and levels of educational institutions with slightly different curricula and systems have been known to spread through succeeding dynasties until the end of the nineteenth century when Dae Won Gun Regency abolished the traditional system in order to reshape it to national scale. Until then formal education was limited to the upper classes only, and the curriculum was made up mainly of what was imported from China; Chinese Classics (Confucius', Taoist's and others), history, literature, Buddhist Sutras, etc., with a little different emphasis according to the demand of the time. All the texts, even our own, were written in Chinese. The purpose of the traditional education was no doubt to produce an elite leading group for the society.

Therefore, traditional Korean educational philosophy and its system has not been much different from that of China. A number of researches, however, have been done in the educational field about how these foreign philosophies have influenced the indigenous Korean educational theory and practice. In their conclusions, in most cases, they suggest what the Ministry of Education recently said: "In assimilating foreign cultures, the Koreans have refused to remain content with mere imitation or coping but always saw to it that native elements were injected in proper proportions to create original works of their own." (Education of Korea, 1979-80: 14)

Of course, it can not be denied that there were during its history a number of great Korean works done, notably by Lee Toe Gye and Lee Yul Gok in the 16th century who in a creative way in the process of interpreting what developed in China as a combination of Taoism and Confucianism by Wang Yang Myeung[10], which emphasized the practical aspects of life.

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[10]Korean pronunciation.

There were also occasions of seemingly purely indigenous developments based on native religion, like the creed of Dong Hak at the end of Yi dynasty who believed that Heaven and Being are the same.

On a larger scale, however, these are hardly escapable from the umbrella of a Chinese frame. It cannot be a shame, I feel, to admit foreign form, once transformed, as their own. If the present Korean education can be said to be a mixture of Confucian conservatism, Japanese bureaucracy, American democracy and Western materialism, they are Korean interpretations and hence very much Korea's own. But if there is a stable undercurrent which makes a difference in spite of the upper-current of foreign influences, it is worth our effort to try to understand how the upper and under-currents show themselves. In shallow water we do not expect a strong undercurrent.

In this sense it would be worthwhile to pay heed to the strength of the undercurrent in the Korean context and, to try to disclose the form of this strength. More than four thousand years of history may suffice to allow us to assume a depth of water and a strong undercurrent. But two thousand years of direct and constant contact with China, I think, is long enough to count its influence as Korea's undercurrent itself. In this sense, I said what is imported from China in the name of Confucianism, Taoism or Buddhism is Korea's own. What consolidated this mixed undercurrent was not only the long period of time but also what ethnologists call "Mythic Ritual[11]" as the national imprint. This started from the beginning of ancient Korea and continued to be widely practiced, especially among the rural populace until now, and had no conflict with the way of Chinese thought. Perhaps from the time long before Lao Tzu and Confucius were born, there might have been active intercourse between Korea and China.

Because formal education had been monopolized by and limited to a small group of the ruling class, it had little to do with the consciousness of the populace. Social classes so segregated the populace from the ruling class and the state that it resulted in consolidating the ties within the family and community. It is interesting to note that this indifferent attitude

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[11]There is no corresponding word in English.

towards the state continues into the present according to a survey done by KEDI;

> For the view of the nation, the subjects in general showed neither favorable nor unfavorable attitude towards the nation, with the differences of less favorable attitude in primary and university students than in secondary and high school students, and less favorable one in rural people than in urban people. The researchers said it was hard to interpret the differences solely based on the data. (Cho Geung Ho and Cho Dae Heui, 1977: 272-3)

It may be possible to interpret that the groups with the less favorable attitude are tied more strongly with the family than are the more favorable attitude groups. The strong family tie can be said, in turn, to have strained the tie with the state. In any case, we need to pay attention to the populace in order to understand the main undercurrent of Korean consciousness.

I found it, therefore, more convincing in the Korean context to refer to the "Mythic Ritual" so long held by most Korean people for their view of human being. Educational philosophy should start from the view of man with his relationship to nature. If education in its simplest definition is nothing but teaching the way and content of living, its concept must have accommodated ways of living and the meaning of life of the people in a given society. However sophisticated, authentic, correct or objective a definition is made for education, it will have nothing to do with education itself apart from a given social context.

According to ethnologists and historians, the "Mythic Ritual" from the ancient tribal state[12] had played the sole role of consolidating group cohesiveness and gave the basis for the meaning of their existence. So prevailing was this rite that some historians insist that it was their unique religion.

Even though there is controversy, mainly because of the lack of authentic records[13], there seems to be no great hesitation in viewing it as the pervading original ritual for the time before the Three Kingdoms period[14]. Various kinds of rituals were frequently held on a national

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[12]The first one was known as Bu Yeu established in some 2300 B.C.
[13]Most of the events remained in legend or unauthorized books because since the influx of sophisticated religion from China, the state accepted it as the official one into which some elements of the original myth amalgamated and the rest are infiltrated into populace.
[14]There are also scholars who try to separate what has been practiced among the populace, usually by a witch, from the ones transmitted from China, and view the former as the authentic Korean myth. But I think there are not great differences in both because there are also a lot of mythic elements in Chinese religion and

scale and people's consciousness of oneness with the state, therefore, was so strong that no other states dared to attack them. Appearing in different forms the "Mythic Ritual" can be explained as a worship of Heaven and various Gods which they believed were present everywhere.

Some examples of the "Mythic Ritual" still remain. One example is Ancestor Worship, a practice well coupled with Confucianism. So strongly held is this practice that the government arranges special transportation three times a year[15] for the people to visit their ancestors' tomb, usually located in their home town. This exodus sometimes leaves Seoul half vacant. Those who stay at home hold ceremonies privately. Another example is the Food Service to Gods. Whenever a special food such as rice cake is prepared, they serve it to various Gods, before they eat. Although this was widely practiced until some three decades ago, recently the practice has been restricted to rural areas particularly among the old people. A third example is the ritual of Exorcism Performed by a Witch. In this form of ritual, in order to prevent or cure calamities like diseases or misfortunes or to secure a boon, they invite an exorcist to hold a special ceremony which is different in style according to the kind of Gods they need to invoke. This ritual, which lasts a few days sometimes, is diminishing but can still be seen in rural areas.

For the view of man seen in the Korean "Mythic Ritual," Kim In Hoei (1983:24-32) identifies four characteristics: Being as nature bound -- human being exists under the order of nature and must live in accordance with the natural order; Being within relations -- human being cannot but exist and find meaning only within relationships with others, out of which comes family first, then community, and lastly state; Ethical being -- in order to live in such a world he must follow a passive ethics inherent in the natural order and at the same time an active ethics dictated by the duty of family protection; Living being -- however afflictive it may be, the living in the present world is more important and precious than the ones in other worlds, be it of next life or supernatural one. The basic philosophies of life that emerged from

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[14](cont'd) Buddhism. So what has survived in the populace, I think, is simply a different form of mythic ritual which could not find a place in the Chinese myth.
[15]New Year's day by lunar calendar, Han Sik(just before cultivation, it varies a little bit every year) and the biggest one, on August 15 by the lunar calendar.

these, he summarized, are naturalistic realism, harmonious egalitarianism and present life centered pragmatism.

Kim In Hoei analyzed intensively the methods and elements of the Mythic Rituals, especially lyrics of incantation, in a way in which the above view of man appeared. Throughout the long history of a crucible of affliction due to foreign invasions, the reason that Korea was able to maintain its cultural homogeneity (e.g., language, customs, kinship system, etc.), he insists, can only be found in the Mythic Ritual.

While it is generally agreeable that the Korean's view of man can be found in the Mythic Ritual and that the ritual has continued with little change, the assertion that this view of man emerged from and was influenced solely by the Mythic Ritual seems to be suspicious, for the Chinese view of man is not much different from that of the Koreans'. Even though Chinese influence was limited to the upper classes, the time was long enough to allow this influence, if only indirectly, to penetrate into the populace's consciousness. Also, there is no point and it is impossible, as Kim did, to differentiate the culture of the gentry and that of the populace. Therefore, I am rather inclined to view that the Korean view of man, as an undercurrent of the way of thinking and living, has been formed through the mixture of Korean traditional Mythic Ritual and Chinese influence, to which were added the Japanese and Western influences in this century. And also, I think that among these four characteristics of the view of man, the first two, i.e., "Being under the natural order" and "Being as a family member" are primordial to which the other two are subordinated.

Living Conditions in Traditional Korea

It is worth reviewing how these views of man dissolved into Korean educational thought and reacted to Western influence. Before doing that, it will be desirable to review briefly what their living situation had been.

There was no way of changing social class except when at the end of the Yi dynasty some rich farmers or merchants could buy a gentryship from corrupted officials and forge their

genealogic table. Even if a man were born under a gentry but as a bastard, no way was made for him to lead a social career which was meant for a government official. All the people, therefore, accepted the social class to which they happened to be born as the order of nature, simply because they had no choice just as they can not choose their parents.

Social classes consisted of, in the descending order of hierarchy, gentry, farmer, artisan, merchant and the untouchable butcher with a clear demarcation between the gentry and the rest, all of whom together were called rabble, so a simple dichotomy was made between the gentry and the rabble. The only way for the gentry to enter government service was through the state examination. Families who produced bright enough sons to pass the examination could flourish, but if not, sometimes for generations, they were doomed to be fallen. The examination was known to be so difficult to pass, perhaps due to hot competition, that the word of the examination, Gwa Geu, became a common usage applied to the cases of those who achieved an outstanding breakthrough.

Eventually there were many fallen gentries, either because of failing to produce sons who could pass the examination or because of retiring as a result of power struggles or exile[16]. Among the fallen gentries, those who inherited wealth from their ancestors[17] could live in affluence, but those who were unlucky would live destitute. Among the gentry classes, however, there was a strong ethos which, inherited from Confucianism, admired rectitude and poverty.

As a result, there were a lot of pauper gentries who could do nothing for their livelihood, because they had to keep their face as a gentry, but study with a hope of passing the examination someday. Even in abject poverty where no single grain was left in their rice box and cold winter was faced without fire wood, which was at that time plentiful just outside of their house, they could do nothing of laborious work which was supposed to be done only by non-gentry classes. They had to keep their pride and magisterial posture as a gentry. An expression which is still used in an ambivalent situation would suffice to explain the scene;

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[16] Even though they are deprived of their offices for being involved in a crime, they retained the gentry classes.

[17] The higher rank or honorably retired civil servants could get fief from the royal court, which became private property.

"after having drunk water, using a toothpick" as if they ate beef. It is now well known that "Good morning?" in Korean means "Have you had a breakfast?" and "Good afternoon?", "Good evening?" alike means "Have you had a meal?"

The question is how were they able to survive in such a situation? The answer is that they got help from neighbors, in most cases non-gentry classes, for which they never begged. For the neighbor's part who knew exactly what the fallen gentry's situation was, the reasons for helping, usually in a surreptitious way in order not to hurt the gentry's pride, would be various: from sympathy or a spirit of helping each other which was very much a part of Korean tradition[18]; out of respect for they not only were unable to have such a prestigious title as gentry but also could hardly imagine such an indigent living yet tenacious, unflinching postures[19]; a special relationship they made in the past or a hope of making a special relationship for the future[20].

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[18] For example, they do not leave anyone starve to death; serving unknown and unexpected guests was very natural (whenever they have a meal and there were any passers-by or visitors they never let them go without asking to share some food with them, be there plenty of it or not); travelers could get free service of room and board anytime at anyhouse regardless of the quality of service (They used to think that sharing the same of what they have with guests, so the mind followed by the service, was the best treat, but in reality, because of the mind, they tended to serve guests better than they can afford.), so what travelers, if benighted, should do is simply to knock the door of a big, if possible, house in any village. -- In relation with this there is a famous story about Kim Sat Gat who was a genius bastard, therefore having no business with the state examination, and a wanderlust poet who made visits to all the rich gentry houses of every nook and cranny of the nation, received well treats and made a fool of them by making cynical, witty yet beautiful lampoons. Students love his poems and there is even a popular song made for him.

[19] Many stories, especially for the T.V. dramas, have been made about the upstart gentry who bought the gentryship but not knowing of necessary parlance, walking style, gesture and all complicated civilities as a gentry, made a fool of himself everywhere and finally threw the gentry attire away with a shout; "Mutt's fortune is the best", for the dog is free and need not any of formal procedures for his behavior. The word for fortune or destiny most commonly used in Korean, Pal Za, literally means "eight characters" which was originally derived, I think, from Tai Chi. But people use it very naturally without paying any attention to what these eight characters are composed of, which I think means "confinement" of a person from 'eight' possible directions, to make a fortune or destiny.

[20] Koreans tend never to forget of what they were once beholden to. And they believe anyone forgetting of this is not a human being but a beast. That is why, I think, they could develop the spirit of mutual help.

As they accepted the social classes as a natural order of nature, so also was the family, without which they were unable to be born in the first place but also could not imagine their survival especially without the parent's care when they were young. So they believed that people are born with at least two tethers which they can not cut off; the family and the social class to which they belonged. A further level of the noose could be extended to the state and "big nature" from which originated all infrastructural webs of snares. They could find their means and meaning of living only within their limits of destiny.

Separated individuals from the beginning, therefore, could not exist in their mind. An individual exists only within a family which can be made up of two persons of different sexes. Only from and within this family can a person be born and survive. The word for person in Chinese is ideographically composed of two sticks, the one being a little longer than the other, which stand together by leaning against, therefore supporting, each other.

In traditional Korea, true today as well, a man was referred to as, let alone his given name, a son of not "whose" but "which family." That is why given names are seldom called in Korea. The word denoting an individual is rarely used even in the modern text books. In most cases, where in English "I" or "my" is used, Koreans use instead "we" or "our"; so it becomes "our mother" (even in the case of single child), "our parents", "our brother", "our village", "our school", --- even "our wife" not "my wife." If a man makes a tincture of "I-ness" in his words, he was considered, until a couple of decades ago, as a vulgar or uncultured man. So they developed a number of polite or humble expressions for "I" for the use of ineluctable cases[21]. In general, the plural expression is preferred to the singular expression.

A man's honor, like passing the state examination, is the family's and community's honor before his own. So a man's misfortune becomes the family's. A marriage is basically a family business rather than a personal one; so is the new born baby. The family's pleasure or happiness comes first and then follows the individual's. In the noble family, a father in front of his own father was not allowed to express his love directly to his own child, e.g., holding,

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[21] According to Lee Gieu Tae, there had been thirty-six different expressions for "I." (1978: 254)

kissing or smiling at the baby. Individual happiness was enjoined to family's or one's parents'. They must have thought that "I" belongs to "we"; therefore, "we" is higher than "I" which should be subjected to "we". An individual exists in Korea not individually but collectively.

Extension of the family concept to the village was natural for they had to live in close contact with each other, especially in order to do farming efficiently. There were no secrets among villagers. They knew almost all the detailed information of each family. They visit each other any time, with or without any reason, to the extent that they knew even how many chopsticks and spoons there are in which house. That was their way of life. So the whole village was like an extended family. A family business, in weal or woe, became that of the village. Intervention in other family's business, whatever kind it may be, was so encouraged that those who did not do this were called inhumane. People were accustomed to listen to the seniors of the village.

In order to live in such a "we" world, they developed a highly sophisticated order system. Everywhere there is an order or hierarchy. If all other conditions are equal, then age dictates the order. Within family members or relatives there is a strict order, in which generation rank comes first and then age. For example, if a grown up man had a young uncle, he has to pay respect and be deferent to the young who is in a higher generation rank. Even a sixty years old gentry does the same thing to say a ten year old if the young belongs to the higher generation rank. So the respectful and disrespectful word system is very complicated. A grandson should not use a respectful word in indicating his father when addressed to his grandfather because the grandfather is higher in order than father. For example, when a grandson talks to his grandfather about his father, he has to use an average(neither respectful nor disrespectful) expression in indicating his father like "A Beu Zi Ga" or "A Beu Nim Ie"(average expression for father) instead "A Beu Nim Gge Seu" (respectful expression for father)[22].

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[22] I have a cousin only five days younger than I, so we grew up and went to school together. Though he was bigger than I, he never, until now, used disrespectful words to me, which looked strange to our friends who did not know our relationship. Every New Year's day he used to pay me a "big obeisance" which

Order can even be found in things. One has to choose different expressions about things according "to whom" or "about whose things" one is talking. While there is order in the things themselves, relationships are not always clear where persons are involved. The head is the highest among all the parts of the body[23], hands are higher than legs, the right than the left, the East to the West, the South to the North (you should not sleep with your head toward the North, seldom toward the West as well, for only the dead sleep that way[24]), etc.

While things can be upgraded to the human level, in their words at least, human beings can also be degraded to the level of things. In this sense things and human beings can be said to be equal. They must have found the strict order concept rooted in the order of nature. Spring and Summer, day and night, young and old, birth and death --- everywhere in nature there is an order, so should it be in human affairs. As nature keeps its order, so should human beings do with their own.

This whole web of relationship, interhuman and natural, coupled with Confucianism, provided the codes of ethics. In relation to nature, the work ethic needs to be emphasized. Though they looked up to the Gods and the supernatural order, these were not palpable. So they sought the direct manifestation of nature's will in farming, which they thought was the "big basis" of all existence between heaven and earth. Farming was the vocation provided by heaven. It does not fake and without a word provides food for human survival. If rectitude was the creed for the gentry, so was assiduity for the farmers. For the farmers, assiduity or hard work was the sole guarantee for their survival and prosperity. Farming then, unlike the modern way in developed countries, needed cooperation without which the labor intensive activity was

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[22](cont'd) younger persons do to elders on that day as a custom.

[23] When Shin Chai Ho, a staunch historian, visited Ching China as a royal envoy at the end of the Yi dynasty, Lee Gwang Soo, later became a famous novelist, followed as secretary. Lee had to serve the wash basin every morning, --they must have got in a poor lodge-- but Shin washed his face without stooping his head making his single robe wet. Lee had to iron the wet robe every day, so one day Lee asked, "why?"; Shin answered, "My head is so important and precious that to no one except King and Heaven should it bow, then how can I let my head down to a wash basin?"

[24] In Korea of course, but I myself as a habit have strictly kept this rule while staying in Canada.

not possible.

Besides, they had to keep busy all the time regardless of the product. In a sense, productivity counted little for they had to find any work to do in order to beguile a hungry situation. "Time killing work" or "work for passing" were the words they preferred to use, which though not purely time killing[25] were little related to productivity. That is why Korea in order to keep ladies busy, I think, developed the most strenuous cuisine and dress system. This habit was supported by a Confucius's saying: "A Small Man[26] is thinking and doing something no good when he has no work."

So there were ethics dictated by nature and by human relations. Ethical codes had been very strict and well exercised by most Koreans. Korea has long been known as a country of courtesy in the Orient. No simple explanation would be possible for how they became people of strict ethics, but their views of man and living conditions contributed no doubt a lot to forging their sense of ethics.

In this section I tried to describe the Korean's view of man and their living style as the undercurrent of its traditional cultural force up until the end of nineteenth century. It can be pointed out in brief that in the ancient tribal states the "Being as a natural order or providence" was given primal importance to their lives with the result of a strong tie with the state, but this higher level of relationship was reduced to the community and family level making the "Being as a family member" predominant as class differential and harshness of living condition became apparent, influenced by China and later Japan.

Educational philosophy was nothing but the reflection of their view of man and way of life of the time. They did not think of nature as existing to be exploited by human beings; rather they sanctified natural phenomenon, be it mountain, river, flood or drought. They could not think of any challenge against natural order and human fate.

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[25]They hated to see anyone doing nothing but playing or doodling.
[26]Contradictory term to the Righteous Man or Ideal Man.

C. Vortex of the Modern Era in Korea

There are a number of ways to look at the Korean situation. It may imply that there is hardly an authentic view of Korea, especially for the last century of its history which in a word is a maelstrom of change compared to the earlier history. Different views may be based on different sources of information upon which individual predilection or frame of reference are reflected. Not only individual predilection but different philosopies for the future would result in different views. Of course, there is a limit in individual experiences with the sources of information which contribute to orient an individual's view of the present and his philosophy for the future.

The question is then whether it is the quantity of information or the quality of it, or both, which influences more decisively the forming of individual philosophy. It belongs again to individual preference which was confined and formed by the quantity and quality of information the individual came across. So there is no end to debating, no authentic view of Korea.

It is impossible to expect that even Koreans who having lived and experienced the same history and who were educated under the same educational philosophy and system, would have the same view of Korea and the same philosophy of life. Not only is it impossible but also it is undesirable. Diversity is ineluctable. The view of Korea, be it an individual's or a group's, is then the interpretation of what happened in Korea based on one's own philosophy.

The Japanese view of Korea, which was the major source of information about Korea to most westerners until recently, is different in general to that of the Korean for their philosophy is different. But different or sometimes biased views are not meaningless because they are the very ingredients of the total view. By the same token, if my view of Korea is different from others, it should not be viewed as meaningless just as, or because of, there is hardly a ground for an assertion that my view is authentic. At the same time a caution should be directed to guard against the possibility of accepting what is addressed in beautiful words or in well informed ways as the authentic one.

My view is meaningful to me, because it is only from and within it I can find the meaning of my existence. It is meaningful to others so long as it allows communication with others. Whether or not mine is communicable is decided not only by my genuine heart of willingness or openness but more so by that of others. Because "meaning" or "view" belongs more to the "emotive" than the "cognitive." Because, especially in education, we have to deal not with machines but with the irrational, alterable human beings whose action depends more on belief than on ratiocination.

Dawning of Modern Education

In order to understand the Korean education for the last a century, what they termed as "new education", it is important to review the main streams of educational movements that took place: nationalistic education, the United States missionary and Japanese education and the education imported from the U.S. after the liberation.

Through the histories of China and Korea, it is observed that about three to five hundred years is a limit for a nation to survive even in a halcyon period, during which a nation's life seemed to decay inwardly mainly due to accumulated political and societal conflicts. The Yi dynasty, with its political and social bases on Confucianism and having lived about five hundred years by the end of the nineteenth century, seemed to have reached its limit for self-destruction. Even setting aside the foreign influences which started to knock at the closed door of the dynasty at that time, inner political struggles and ensuing social unrest made the dynasty almost impossible to sustain any longer. The closer it came to the end the more severe the political struggle became and the more conservative character its political leaders showed in order to keep their power. In the historical sense, the timing for knocking at the door was unfortunate for Korea.

It can be said that Confucian education was successful for the five hundred years in terms of supporting the nation with relative stability. But at the same time, it can be viewed that the very success turned out to be the reason for failure in adjusting to the new trends

flowing in from the outside world, for it was too consolidated through the long period of time to be changed. Or it might be that the problems latently accumulated under success might have cropped out at this turning point of history.

Traditional Confucian education was in a word to maintain the tight social class system, within which the people were enforced to adjust and find their living. Respect for the literati, a hope for climbing up the social ladder through the state examination, and a fatalistic value system embedded in the social classes were the general ethos produced by Confucian education. As a result, there were not many people available who could think and undertake the large scale of social reform which was required at that time.

The upper classes were at ease in the system and tended to become more conservative in order to keep their position as the society became unstable. One example is that the first modern type of public school, Yugyong Kongwon, established in 1886 by the state was for the gentry classes only[27] (Ministry of Education, 1979-80: 15). Some gentry classes ousted from power were still of the same kind and not ready for a radical change or for accepting a totally different system. At the end of the nineteenth century there was a serious struggle between a small group of radicalists led by Kim Ok Gyeun and the majority who were conservative. This struggle resulted in a possession of power for only three days, after which the radicals were immediately defeated by the conservatives. Even at the brink of a nation's fate, the leaders were blind to the world's trends.

The middle classes who had well adjusted to the system and had become rich as farmers or merchants, and who could buy the gentryship, found no reason to change the system. Only the lower classes composed of small holders, tenant farmers or servitors[28] had reason to revolt aganist the ruling classes, but they were mostly ignorant and powerless. Nevertheless, coming to the end of the 19th century, when the power struggles within the upper classes and corruption of the civil servants became so prevalent as to threaten the sustenance of the populace, there

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[27]In 1895 a royal decree opened the gates of state operated schools to common citizens(Kim, 1983: 42).
[28]They were freed by law at the end of Yi dynasty.

were consecutive uprisings of the low classes throughout the nation.

That was the internal situation when Japan in 1876[29] forced an unequal treaty on the tottering dynasty, forcing the "hermit kingdom" to fling open its doors to external influences. The treaty of Kanghwa with Japan was followed by a succession of similarly unequal treaties with various Western powers.

Meanwhile, a number of private schools were established by the people who opened their eyes to the outer world, instigated by the spreading control of Japan and the American missionaries who started a modern type of schooling. The missionaries at first brought with them not only the Bible but also modern education and medical services which were, of course, means for spreading Christianity. The missionaries were welcomed by most Koreans including the King for they came at the time when Korea needed to do something with the new education but did not know how[30].

The first missionary high school, Baejae, was established in 1885 by H. G. Appenzeller of the North Methodist Church, followed by other missionary schools by different groups of missionaries at various levels of schools. Among the missionaries were those who had a genuine zeal for the education of the Korean people. They were in most cases sympathetic to the Korean situation under the harsh Japanese control and at first encouraged the cultivation of a national spirit through their education.

In order to produce the people who could save the nation and make it compatible with other developed countries, a number of wealthy patriots who believed that education was the only means for the emancipation of the nation, donated their land and properties for the establishment of private schools. Secondary schools had increased by the time of annexation to over 5000 pari passu missionary schools.

The development of modern education was interrupted in earnest by Japanese colonial rule after 1910 resulting in the closing of most of the schools leaving only 649 by 1923, 273 of

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[29]Japanese intervention started from that point, and by another protective treaty in 1906, the virtual control of the nation was taken over by Japan, making the annexation in 1910 only a formal turnover.

[30]The royal court at first even supported the budget for some missionary schools.

which were missionary schools (Kim, 1983:46). While most private schools were based on nationalism, the missionary schools were based on Christianity and the democratic ideal. That is why, after the annexation, the former had difficulty in surviving and the latter, under the guise of political neutrality, survived without difficulty.

Although the number of public schools increased markedly during the colonial period, the education offered by these schools was far from meeting the rising aspirations of the Korean people. Rather, it only served the purpose of converting the Korean people into loyal subjects of the Japanese Empire. The imperialistic intent of the Japanese government dictated the goals and content of education. The colonial education culminated in the imposition of a ban on the use of the Korean language in schools in 1938(Ministry of Education:21). The Japanese language became the only medium for teaching even in the primary schools. A number of scholars of the Korean Language Society at that time were put in jail, some of them until the end of the War, simply because they loved and continued to study their own language.

Even though there were different kinds and levels of educational institutions in traditional Korea, the most important educational role was carried out by individual families, in all gentry classes, using as the main Confucian text and other Chinese classics. Those who could not teach their own children sent them to a near gentry family where a small group of children formed a kind of private school named Seu Dang. Almost all villages except isolated areas had Seu Dang. There and in individual families, not only Chinese characters but also decorums in practice were emphasized.

People believed education was not simply memory of some knowledge but edification of mind and behavior through practicing that knowledge. Especially, the noble families with this concern in mind were very strict in teaching their children ideal behavior from a very early age, usually at three. This traditional system of education was continued even after the public schools were widespread. Even nowadays, one can tell, by their behavior including parlance, what kind of family someone is from. The social class system was annihilated a long time ago but the difference between the gentry and the rabble as a criterion of judging one's

behavior(even the words are still widely used in an informal way) is still vividly lived in their mind.

The modern style of private schools were difficult to run due to Japanese suppression and also the lack of qualified teachers. There were, however, successful cases producing many able youths who later joined the liberation movement and became social leaders after the liberation. Some missionary schools were in accordance with the hope of the Korean people. But most of them had cooperated, wanted or not, with the Japanese government to the extent that the students demonstrated against the missionaries as well as the Japanese a number of times in their liberation movements. It is without doubt, nevertheless, that the private and missionary schools provided a spiritual guide for the suppressed Korean people at that time and exercised a great influence in developing modern education in Korea.

Japanese public schools have been criticized as having contributed to perpetuate the colonizing spirit in the Korean people. But, it is true that most Korean people of about two generations completed that education by which they became literate in the world of rational thinking, science and the other cultures of the world. It is also true that, as expected by what the power of education would be, many intellectuals, although ostensibly having antagonistic feelings towards Japan, were imbued with the Japanese way of thinking. Some of them even openly admired and helped what Japan was doing to Korea.

A number of reasons can be mentioned for the failures of the incessant liberation movements of the time: the Japanese government applied a harsh policy against them; the Koreans, having sectarian propensity based on family and community relationship, were not accustomed to organized activities; the Japanese who well understood the Korean personality, cunningly utilized the network of collaborators who divulged such a plan before it was put in action. And it is also true that, as time passed without success, there were an increasing number of turncoats. One thing is clear: most of those who were able to get benefits under Japanese control did not want the liberation. Among these were those well educated under the Japanese educational system who got public positions in government, the military, or the police force.

Education after Liberation

Education after the liberation has been imported directly from the United States. The U.S. provisional military government for the first three years after the liberation and the missionaries who came back after being expatriated in the early 1940s by the Japanese government hurried to implement the U.S. democratic education fearing that otherwise there would be a nationalistic system of education. Beginning in 1946, the U.S. Education Mission who consulted and taught Korean educators and administrators, recommended a Korean educational policy and system in which the U.S. educational philosophy and system could be most effectively and efficiently implemented. A number of Korean educators were sent to the U.S. to have the necessary training. The last group of the Mission came to Korea in 1959 and stayed until early 1960s.

On the Mission's recommendation the first educational research institution was built in 1953, named the Central Educational Research Institution (CERI), and lasted until 1972. A part of the Mission, usually 3-4 members, constantly stayed at the institution and taught educational theories and methods, guided educational research, and re-trained Korean educators. In 1970 a Florida State University team, named the Korean Education Evaluation Mission, came to Korea and undertook a project in collaboration with the researchers at CERI. As a result of this collaboration, KEDI was born in 1972.

A number of things need to be mentioned about the social background of the time. In the political disorder after the liberation the U.S. military government supported a specific person and his party, Rhee Seung Man, who became the first president of the newly born Korean government in 1948. Rhee lived in the U.S. as a refugee for more than thirty years until the liberation and was known to have engaged in the liberation movement there. While he was living in the U.S., the U.S. government did not pay much attention to him because of his despotic reputation -- he was not welcomed by the majority of the Korean people in the U.S. and was even rejected from the orthodox provisional Korean government-in-exile in Shanghai, China. He came back to Korea after the liberation to find a number of great popular leaders,

mostly nationalist, who led liberation movements centering around the provisional government-in-exile.

Rhee organized his party, perhaps in alliance with the U.S. military government,[31] by gathering around his party mostly Japanese collaborators, notably many policemen who worked under the Japanese government. Of the Korean leaders, there was no one but Rhee who was ready to sit on the side of the U.S.; besides he could speak English and had a Ph.D. degree. The saddest story of this critical moment in history recorded that most, almost all, of the great national leaders of that time, being political opponents of Rhee and dissident to the U.S. policy of dividing the nation, were assassinated one by one by unknown terrorists who afterwards always claimed to be Communists.

During and after that time, no case was made for punishment, of whatever kind, of any national traitors who, sometimes more viciously than Japanese, exploited and illtreated their own people during the Japanese control. At first, some of them were put in jail but Rhee's party openly and by force released them all. Furthermore, Rhee, after he became president, appointed Japanese collaborators in all the important positions on the excuse that they were the only ones who knew how to do the work through their training and experience while under the Japanese control. Thus the new government in most areas was organized mostly by Japanese collaborators, notably the military and police forces.

How dire the Japanese policemen were at that time is well expressed in the popular saying to stop a crying child; the traditional expression of "a tiger is coming" was replaced by "a policeman is coming" which is still in use. Military men were more powerful than the policemen for the Japanese government was military. Korean policemen during the Japanese control were working as a cat's paw for the Japanese police, and Korean military men were fighting against Korean liberation forces mainly in Manchuria.

Rhee, after twelve years of despotism and corruption, was finally toppled by the student demonstration in 1960 and expatriated to Hawaii where he died.

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[31]Which may be not unrelated with the U.S. policy toward Japan at that time.

It is a widely known fact that President Park, who came to power by a military coup in 1961 and became a despot similar to Rhee until he was assassinated eighteen years later in 1979, was a Japanese military officer. After the liberation he was involved as a Korean military officer. in the Communist insurrection at Yeusoon, one of the most atrocious and massive insurrections of that time.

Korean education, suffering from a poor situation after the liberation, thus began to imitate the educational theories and system of the richest country, with the result that a democratic ideal was put into a most undemocratic tradition. As in politics, educational leaders claimed superficially to stand for the democratic educational philosophy, which in reality could not be realized in a day. The early scene was seen as unbalanced like "a man on a bicycle with the traditional dress on" or "a man wearing a tie with the traditional straw shoes on."

Most people in charge of education were those who had been educated under the Japanese system and thus imbued with the Japanese bureaucratic system which was, without much resistance, implemented into the hierarchical Korean tradition. Educational system or method was adopted from the U.S. but for the content they copied from the Japanese texts which were written in a language they understood and not much different, they thought, from that of the Western world. A while later there were, and still are, struggles between those who are inclined to the Japanese tradition and those newly educated in the U.S., regarding the processes of curriculum development or revision. The former, outnumbering the latter, have been preponderant concerning the content of education.

For example, based on all reliable sources including the Chinese orthodox history books, a group of young scholars pointed out that there were errors or intentional warps in the Korean history text which was written during the Japanese rule and is still taught through the school system. But young scholars, until now, could hardly shake the position of the old scholars who held power in the area. Even in science subjects the old scholars have oftentimes demonstrated conservativism in accommodating a new theories thereby disappointing the young scholars. Furthermore, the unique political situation along with the changes of power, have

dictated the content of specific subjects, e.g., national ethics, anti-communism and social studies.

One exception is in the field of educational theory, methods and research where no authorities were extant from the beginning, and which has been subject to change, as was in the U.S. Therefore, extremely speaking, anyone who proposed a new theory, usually learned from the U.S., became the authority. The Korean educational system and methods have thus been largely a repetition of trial and error tactics and has been widely criticized for being a field for experimentation of U.S. educational theories.

One persistent and conspicuous influence of the U.S. on Korean education appeared in the areas of educational methods and evaluation; i.e., the scientification of teaching methods with various technological teaching aids and objective evaluation based on positivistic behaviorism. Efforts to make education scientific and efficient have been in accordance with the needs of accommodating to the ever increasing education population and of producing the needed manpower for economic devlopment.

As a corollary to this, the educational field and the society as well began to perceive various side effects of the so called "modern education" in around 1970, which might have been due partly to the authoritative bureaucratic uniformity of educational administration but mainly to the objectified view of man: e.g., a social ethos in which a man is evaluated only by one's grades, school certificates, income level and social position; teachers are viewed not as a respected being of humanity but as a mere technician who transfers knowledge; a phenomenon which conceptualizes education as a factory or an enterprise foisting various tests and side texts to the students; interruption of the traditional values.

Concerns were voiced about enhancing the quality of education and restoring the sustainable traditional values into the present education. But the efforts seemed not to be successful until recently because the power and control is still in the hands of those who are imbued with the positivistic, expansionistic, scientific tradition of the U.S.

The quantitative expansion of the educational system was phenomenal. During the single decade of the 1960s 20 classrooms were constructed each day, and every three days, two new schools were established at the primary and middle school level (grades 1-9) inclusively (Sang Joo Lee, in KEDI's 10 Years History, 1983: 4).

In 1945, in both North and South Korea, there were only 2,834 primary schools with a total enrollment of less than 1.4 million. By 1978, in South Korea alone the number of primary schools increased to 6,426 with a total enrollment of 5.6 million students. This enrollment represents 98.4 percent of all primary school-age children in the entire country. In 1945, there were 165 secondary schools with about 83 thousand students in both North and South Korea. By 1978, South Korea alone had 2,012 middle schools and 1,254 high schools with a combined enrollment of over 3.7 million students. Students at all school levels in 1978, numbered 9.6 million accounting for a quarter of the total population. Using the figures of 1945, the increases in the number of students in the primary, secondary and tertiary levels, were in 1978, 4, 45, and 40 times respectively(Education in Korea, 1978:23-25).

During this expansion period, concerns were manifested mainly in terms of structure and quantity. Later concerns began to focus on such things as large and overcrowded "bean sprout" classrooms, the "hell" of entrance examinations to higher levels of school, low achievement levels, significant inequity among schools and regions. It was only in the early 1970s that the Korean Educational Development Institute(KEDI) was established by the government in accordance with a perceived need of society to restore social and educational defects of the kind mentioned above.

One of the most serious problems in Korean education has been said to be the unconditional aspiration for education. Unfathomable and unconditional parents' zeal for their children's education since the Second World War, as Chung (1981: 11) described, produced a mass of educated people in the 1960s, who were easily absorbed into the various industrial fields at a time of accelerating economic development. In the early 1960s, the mushrooming construction of universities in big cities were disparagingly referred to as "Cow Bone Tower",

instead of "Ivory Tower", which implies that these universities were built on the bones of cows that most parents in the rural areas had to sell in order to send their children to the universities.

Recently, especially since 1982 when the government set an open policy for study abroad, enrollments shifted toward foreign countries, mainly to the United States. Many universities, due to declining enrollments, abolished or lowered the TOEFL score limit for the admission of foreign students. The only condition has been that they be able to support themselves financially during their study. Numerous Korean adults, in their 30s, 40s, or even 50s, have sold their property and flown to the U.S. to study for higher degrees, in most cases for doctoral degrees[32].

The simple reason is that a higher degree in a hierarchical society like Korea guarantees promotion to a better position. This has been the case, almost without exception, in a society which is in the process of economic development, and which is being reshaped by this desire for upward mobility. The problem seems to be that those who seek higher degrees are, in most cases, strong believers in the highest economic return for educationl investment. They follow this path because they have seen and experienced such a phenomenon among their colleagues; those who had doctoral degrees regardless of their other qualifications or experiences were promoted quickly resulting in higher incomes. In other words, those who have no higher degrees rarely get opportunities for promotion in a society which is competitively based on educational credentials. The situation is most acute in the professional areas such as economics, engineering or technology, science, medicine and education.

It appears then that all educational procedures, especially up to the high school level, have become preparatory ones for entrance to the "first class" universities, which in a sense is a guarantee for a better job after graduation. It has long been said that the university entrance examination policy determined the characteristics of the rest of education.

In the 1950s and 1960s, there had been the so called "first class" primary, middle and high schools, which were determined by the percentage of students produced who eventually

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[32]According to a recent news at the end of 1985, a motion has been set to abolish this policy due to a lot of side effects.

went to the "first class" universities. As the competition became acute, preparatory private tutoring was prevalent through the all grades except the university level. Thus the students and the teachers were concentrating only on the subjects which were offered on the entrance examinations to the next higher level of school with emphases on rote memory and techniques to write the tests. Even though the government ordered teachers not to neglect the subjects which were not offered in the entrance examination, it was useless.

As the last resort, the government abolished the entrance examination to the middle school in 1969 and to the high school in 1975 respectively, establishing a policy of equalizing these schools and allowing students to enter the higher schools within their residential school district by lot (The Ministry of Culture and Information, A Handbook of Korea, 1982: 669-70).

Following the same line of concerns, the national preliminary entrance examination to university started in 1970[33]. Since then a number of different ideas and policies have been exercised in order to prevent the over-heated competition on the entrance examination to the "first class" universities. One of the more radical ones put in action in 1980 was a legal prohibition of private tutoring, in whatever form. Those who violated this law, the teacher and the student's parents, were put in jail and fired from their offices, be they public officals or private employees.

Another one was to scale down the entrance examination cores for the over three years repeaters, and adoption of a graduation quota, instead of an entrance quota, system which allows the universities to admit 30 percent over the entrance quota but these 30 percent of students will have to be dropped out until graduation[34].

But these policies were found to be not very successful. In spite of the harsh punishment, different kinds of tutoring flourished; e.g., tutorings through telephone or disc, or

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[33]With this the university entrance examination consisted of two parts -- preliminary and final ones. The former was designed to screen applicants for the latter, administered by individual institutes. But in 1980 the two examinations were replaced by one, the preliminary one, with the university entrance dependent on the combined scores of high school marks and the preliminary examination.

[34]These policies were made by KEDI.

tutoring which took place while driving in a car. And the graduation quota system, in part, resulted in extending private tutoring to the university level, which was also abrogated four years later, only succeeded in expanding the entrance quota.

During this time one significant change took place in Seoul National University, which is the most prestigious among the first class universities. In the past mostly poor but bright students were admitted to the university but more recently they found that most of the students were from quite rich families which, they interpreted, could afford to provide expensive private tutoring for a long period of time. Education became the subject of an economic condition, which had been demonstrated in U.S. educational history, but had not been so in traditional Korea.

Related to private tutoring is the people's distrust of public education. Teachers are no longer the object of great respect. People deplore the degraded quality of teachers. The so called "skirt's wind" has long been a title word expressing the negative aspect of Korean education, especially in the primary school, which means that the mothers visit schools and bribe teachers with an expectation that they would pay more attention to their own children in an over-crowded class. Other mothers, upon hearing that someone's mother had visited the teacher, could not help but visit the teacher as well. The more often they visited the teacher, the more care their children will get from the teacher. The mother's only concern, in general, is to have her child get better marks. It became a vicious circle in which teachers alone should not be blamed. It is a product of a competitive and over-crowed school system.

Educational policy, without a long term vision, results in a succession of stopgaps with the concerns of allopathy. In order to solve one problem, they set a policy which creates other problems which lead to another or counter-policies. The Korean Ministry of Education has come to be known for their policy of the so-called "Morning Act and the evening Counter-Act."

Related to this is the lack of, or obscure direction for, educational development. A Confucian precept says that education is big planning and a business for a hundred years,

which may mean that educational planning should be based on a vision foreseeing a hundred years ahead and its result would appear a hundred years later. With these very popular words people have developed a concept of, if not a hundred years, a life's or a generation's business of education. But the educational policy and philosophy in practice could hardly have even a few years' vision since it became the handmaiden of politics and economy. Educational development has come to be measured patently in terms of economic development.

III. Korean Educational Development Institute

A. Introduction

As mentioned earlier, KEDI was established on August 30, 1972 in order to solve the educational problems that appeared in society at large and to set a future direction for educational development in Korea. But, unfortunately, in spite of genuine educational and social concerns that were being voiced, the creation of KEDI has been at best a symbolic way of caressing social demands. In fact, KEDI was initiated by economists for economic reasons.(KEDI's 10 Years History, 1983: 20 -- herein cited as KEDI's 10) It came into being as a part of the Third National Economic Development Plan to facilitate the flow of educated manpower needed for economic development. This fact is reflected in the Morgan Report[35], which is said to be the basis for the establishment of KEDI. The understanding of the mandate for the report was to propose:

> ...a better, more relevant education for more Korean young people at a lower unit cost and at a total cost not greater than the nation could afford. (Morgan and Clifton, 1971: 2)

The legislation passed by the National Assembly for the formation of KEDI stated, in the first article, the objectives of the institute:

> KEDI is an independent, autonomous and government funded educational research and development organization which undertakes comprehensive and systematic studies on educational goals, content and methodology. These studies are purported to develop a new educational system responsive to the nation's needs and provide for the solution of educational problems. In order to effect a long-term development of Korean education, KEDI also carries out studies related to educational policy and planning[36].

The above two quotations indicate that the underlying assumptions or orientation that grounded KEDI were indentical with those of the notion of "Research and Development(R & D)" which Ivan Illich termed "Research for People":

> R & D is usually conducted by large institutions - governments, industry, universities, clinics, the military, foundations. It is also carried out by small teams of enterprising persons who hope to sell their research results to institutions.... The use of the term

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[35]Robert M. Morgan and Clifton B. Chadwick, System Analysis for Educational Change: The Republic of Korea, Tallahassee, Fla., Florida State University, 1971.
[36]from a brochure of the E-M Project, KEDI, 1976.

> 'science for people', as applied to R & D does not usually imply reproach; in principle, it does not signify disapproval of an endeavor. It simply means that the results of the research have no bearing on the immediate everyday activities of him or her who does it....[R & D is] always for the service of **other** people(1981:77).

Aoki introduces the R.D.D.A. model: "The technical paradigm entrenched among mainstream thought in North America is reflected in the dominance of the R and D model, more fully elaborated by Egon Guba as the R.D.D.A. model (Research, Development, Diffusion and Adoption)." (1984: 7) It is evident that the R & D (or R.D.D.A.) philosophy or principles are immutably incorporated in the stated processes of KEDI's mission. Because language, as a typical mode of a culture, manifests and confines the ways of thinking of those who use it, examples are found in the institutional preference for R & D or technological terminology in many of the titles or objectives of their research projects. Such terms, for example, as 'instruction,' effectiveness, efficiency, management system, development project, productivity, rate of return, accountability, utilization, application, dissemination and performance are typical terms used to interpret the works of KEDI. Virtually all research problems, which have so far been dealt with by KEDI, manifest or display latent ideas of R & D.

One of the clearest examples of the R & D orientation was the development of an Educational Broadcasting System which purported -- at first as a part of the Elementary-Middle School Development Project(E-M Project) -- to disseminate the same Instructional Television(ITV) program, at the same time, to the same grade students, throughout the whole nation. The idea, according to the Morgan Report (in KEDI's 10: 22), was to provide a better quality of instruction at a lower unit cost. This plan was greatly revised mainly due to the failure of the installation of the seven million dollar(US) T-COM(Tethered Communication Transmission) System which Westinghouse, the contractor, used as an experiment.

More than ten years have passed since KEDI's inauguration; yet, most of the educational problems faced ten years ago have not been solved. Rather, while educational policy and research have followed the dictates of political and economic interests, the problem

situation has been exacerbated. Of course, the situation is not totally negative. KEDI's contributions to Korean education can not be denied, e.g., increasing the organized voice of professionals on educational policy making, curriculum development and revision, enhancing educational capabilities of teachers and students in the classroom, expanding social education opportunities through air and correspondence or instructional T.V. programs for the public.

However, in order for KEDI to survive as an organization, the institute needs not only to be passively aware of its political and economic context, but also to activitly initiate projects to influence societal, political and economic concerns in relation to education. This kind of activity is consistent with the R & D mentality. One recent example which makes this point is the development and implementation plan for the Computer Literacy Program, slated to begin in 1985, at the elementary school level.

B. The Establishment of KEDI: A Historical Context

As in most institution building, intricate politics play a crucial role usually behind the scene; invisible, yet influencing greatly the characteristics of the institution to be built. KEDI was no exception. An important item to be considered in the preparatory process for the establishment of an institute is the source of funding for preliminary research and preliminary costs in establishing it. Among many foreign aid agencies, the United States Agency for International Development (USAID) was the major source for the initial funding for KEDI. The Florida State University study, which was the cornerstone for KEDI's establishment, was possible because of the support of the USAID, and the rice loan of 7.5 million dollars from the same agency enabled the establishment of KEDI[37].

It is a common practice that within a grant based research project, research should meet the requirements of the funding agency. The research procedures from the proposal to the acceptance of the final report, therefore, were checked and controlled by the interest of the fund provider for the research. This is more so in case of research done in and by

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[37]Later, 7 million dollars for the T-COM was the loan from the EXIMBANK.

under-developed countries with monies from developed countries. Inevitably most of the research so far done in Korea, particularly in the field of social sciences, with the money in the main from the U.S. reflected the interests not of what the Korean scholars wanted but rather what was wanted by American scholars. Many Korean scholars understood full well that in order to get a research project, they had to develop a number of research ideas and proposals hoping one of them would be viewed for approval by the funding agency. These scholars knew that the more research projects obtained from the outside, the greater reputation would be bestowed upon them as a scholar. Likely the situation prevailed and prevails in developed countries as well. The mechanism of R & D seems to have a built-in constraint that determined what research could be undertaken.

Another feature that can be noted refers to the persons involved in the project. The FSU team, led by Morgan, knowing well that the kind of job would require an interdisciplinary team of specialists, was composed of seven persons: an economist, a manpower specialist, an educational administrator/manager, an educational technologist, a teacher training specialist, a systems management specialist, and a behavioral scientist(Morgan and Chadwick, 1971:1). Not only the study team but also the consultants, among whom the most influential figures were R. M. Gagné representing the United States and C. M. Chung representing Korea, showed a strong technological or behavioural science orientation.

The research was unequivocally based on the economic concerns of education;

> The primary goal of the study was to develop useful and meaningful strategies for educational improvement throughout the Korean education system. Specifically the question addressed was "Is it possible to provide a better, more relevant education for more Korean youngsters at a lower unit cost, and at a total cost not greater than the nation can afford?" Corollary questions were: "What would need to be done to achieve this and what would it cost?" These strategies were intended to delineate means of providing and arranging resources, methods and technologies to emphasize for improving and expanding the educational program of the Republic of Korea. (Morgan and Chadwick, 1971: 11)

Even though they claimed to have collected "historical, cultural and educational data, including demographic reports, economic forecasts, manpower needs projections, educational fiscal data, current and long-range educational plans and such information as was available on

educational objectives and attainment," these data were analyzed in terms of "future manpower needs and educational output, estimated cost benefits, and strategies for appropriate introduction of innovation and technology into the educational system." (Ibid: 2)

Their concern centered on the "how", and little, if any, on the "what," which is very much in line with R & D philosophy. It was no surprise that the study team as a result of the study proposed to establish a research institute to carry out what they thought should be done. They proposed: "People, money and time are required. Most important, however, is the need for an organization which will permit the most effective utilization of these resources. The organization should be given the mission of building a new elementary-middle school program. Along with this responsibility it should be provided with adequate resources and authority to discharge this mission." (Ibid: 108)

At first they proposed to establish KEDL (Korean Educational Development Laboratory) with the single large scale of the E-M Project (Elementary and Middle School Development Project). Their report described the details of the organization, provided a model of the E-M Project and a set of procedures to carry out the project. To an amazing extent, KEDI for the first few years followed exactly what the report recommended: KEDL was started in November 1971 and launched the E-M project, while they undertook the necessary procedures for the establishment of KEDI[38].

The report included the cost estimates of the project in detail. That KEDI followed the estimates in its subsequent loan proposal and budget allocation, with only perfunctory adjustment, needs not to be mentioned. For the first few years, within the budget limit, a number of researchers and technicians visited FSU annually in order to gain training programs of various lengths, out of which about ten Ph.D.s were produced.

The preparatory job for the establishment of KEDI was carried out by a small group of behaviorists[39], all of them were graduates, and except one, professors of the Department of

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[38]At the formal launching of the organization, the name was changed from KEDL to KEDI.

[39]The members were: Dr. Young Dug Lee, Professor of Seoul National University(SNU), President of KEDI for eight years(for the first three terms, --

Education at Seoul National University, and had a special relationship with Dr. B. M. Chung, who, as a vanguard of behaviorism, influenced greatly Korean education after the liberation.

Dr. Chung wrote three text books for the education students at the university level in the middle of 1950s; "Curriculum," "Statistical Methods in Educational Psychology," and "Educational Evaluation" all of which enjoyed overwhelming acceptance not only by education students but also by innumerable teachers in their retraining program throughout the nation for almost three decades since their first publication. There would be no one in the field of Korean education who would demur the fact that these books, based on the behaviorism predominant in the U.S. during the time, were the single, most decisive ones which contributed to directing and forming Korean education after the liberation. He also developed, by the late 1950s, a variety of psychological tests which have widely been used in the schools since then.

As a person and a professor of Seoul National University, Dr. Chung[40] has also been a very influential figure in Korean education by producing, with direct or indirect influence among his students the most Ph. D.s. The students, who mostly worked with him either at the Educational Psychological Laboratory at SNU or at KIRBS, got their final degree in the United States and took important positions in the field of Korean education[41]. Another important event for him was the establishment of, at first with the help of USAID in Korea, a private educational research institute in 1968 named the Korean Institute for Research in the Behavioral Sciences(KIRBS) which is still extant and later provided key researchers to KEDI.

There are two other important events that took place at the dawn of the birth of KEDI, which also affected the establishment of the institute. One was the Long-Range

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[39](cont'd) nine years including KEDL) on leave from SNU, returned to SNU on Sep. 1980; Dr. Ho Kwon Kim, Professor of SNU, Research Vice-President of KEDI(Aug. 1972 - Aug. 1975) on leave from SNU, returned to SNU, now Professor of Young Nam University; Dr. Sang Joo Lee, Professor of SNU, Research Professor of KEDI(Sep. 1972 - Apr. 1973) on leave from SNU, now President of Kang Won National University; Dr. Se Ho Shin, Vice-President of KIRBS, Head Researcher at KEDI, now Vice-President of KEDI since 1981.

[40]He was the Dean of the College of Education, SNU, in early 1970s, the President of Choong Buk National University(1978 - 1982), now a Professor of Han Rim University.

[41]Three out of four of the KEDI preparatory team (except Dr. Lee who was two years junior to him while they were students at SNU) are his students.

Educational Planning Committee, chaired and directed by Dr. Chung, which undertook, during Feb. 1969 - Dec. 1970, the overall evaluation of education in the past and set an educational master plan for the next fifteen years[42]. This report suggested an establishment of a large scale national educational research institute, temporarily titled as the "Curriculum Development Center," which was supposed to undertake similar kinds of educational innovative tasks suggested by the FSU report which was to be produced four months later (KEDI '10: 21-22). These two reports, as KEDI admitted, can hardly be said as being "coincidental." (Ibid: 22-23)

Another important impetus was the unprecedented success of the Mastery Learning Project developed by KIRBS. At the end of the 1960's, facing strong social criticism about "mushrooming side texts" used in the classroom along with the main texts, and which became a great economic burden to the parents, the Ministry of Education banned all other side texts except the Mastery Learning Texts. In consequence, in the middle school level over 90 percent of all students bought the Mastery Learning Texts and the publishing company, the Better Educational Materials Co., affiliated with KIRBS, made within a few years an unprecedented record of growth in the Korean publishing history. The texts were nothing but programmed learning materials developed and revised every year, for the first few years, by the researchers at KIRBS which largely depended on the royalty from the publishing company.

One underlying motive for the establishment of KEDI was the anticipation that the idea of the Mastery Learning Project, whose political protection was not expected to last much longer, would easily be extended to the elementary level with the E-M Project Materials, especially if the new organization was established with governmental support.

Dr. Chung, without whom it is impossible to think of KEDI 's birth, was never involved officially in the business of KEDI after it was established. But few would doubt the decisive role he played in forming the direction of KEDI, which was based on a positivistic,

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[42]This project was carried out for the planning in the field of education in accordance with the "Third Five Year National Economic Development Plan" supposed to start from 1972.

behavioristic approach. It is interesting to find that he, in his recent article (Occasional Paper No.18, Curriculum Praxis, University of Alberta, 1981), began to show some doubt about the behavioristic approach which he believed in and advocated for about thirty years.

C. The Organization

Organizational Relationship and Its Structure

The preparatory team and task forces added after KEDL started in Nov. 1971 expected the official launching of the organization some time in the following April, but faced unanticipated criticism raised by other educators. Some of the concerns were: Why not try to utilize the extant research institutes instead of establishing a new one?; Should such a large scale educational institute be built on foreign loan?; Would not there be a danger of such an idea becoming a simple experimentation? Some of them did not like the heavy reliance on the research done by foreign scholars, which not being indigenous could lead to the possible dangers of neglecting the educational ideal or objectives of national identity, of inadequacies of R & D ideas relevant to the Korean situation, and of neglecting other urgent needs required to repair educational defects, etc. Related to this were political concerns. Masoner and Klassen in an Analytical Case Study of KEDI said:

> Subsequent to the FSU report publication were enabling events associated with legal and funding questions. The processes which led to those events were also essentially political. On one hand was the USAID desire to have a dramatic example of technical assistance success. On the other hand was a Korea trying to reconstruct an identity long influenced by Japanese and American ideas. At its creation KEDI was much less a creature of evolution -- of negotiation with an environment which included American influence as an item of interest but not of determination. (1979: 62)

In consequence, some negative reports reached the final decision maker, the President of Korea, putting the project at one time into serious jeopardy. But the then Minister of Education was able to reverse the situation. Thus, the birth of KEDI was delayed about four months. The group of leaders at KEDI, reflecting upon its 10 Years History (pp. 25-32), indicated that this occasion was a fortunate moment for KEDI giving time for valuable

experiences, enabling the organization to grow in a healthier state and allowing a restatement of the objectives of the organization in a more comprehensive way covering educational objectives, contents and methods.

They said it was fortunate. But if we look at the other side, there appear to be unfortunate aspects as well. It is true that KEDI, as an organization, grew faster and bigger than the initial planners expected[43]. One thing is clear, I think. This rapid growth is not unrelated to political concerns and the way the KEDI leaders reacted to them. What I would like to question is whether the organization's dependency on political and administrative authority has not diminished the possibilities of an independence that may be desirable for an educational research institution.

The relationship between the Ministry of Education (MOE) and KEDI can best be explained by the budgetary flow. KEDI submits a budget to the MOE in July of every year. The Office of Planning and Coordination (of KEDI) usually asks each unit to submit its annual budget in March, at the latest in April. The general procedures are as follows:

(1)Budgets collected from each department(and unit) are analyzed in the Office of Planning and Coordination.

(2)An aggregate budget is prepared for administrative review.

(3)The annual budget is submitted to the MOE for review by its Director of Planning and Management.

(4)The budget is submitted to the Bureau of Economic Planning Board(EPB)[44].

(5)The budget goes to the Committee on Education and Culture in the National Assembly for review.

(6)Finally, the budget is acted upon by the National Assembly in general session, which usually takes place at the end of each year.

(7)KEDI submits the actual budget and work schedule based on the approved budget to

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[43]As of 1985, KEDI has about 500 staff with an annual running budget of about 20 million dollars (Canadian).
[44]This is higher than the Ministry in the government organization.

the MOE by the last day of each year.

(8)MOE allocates the budget to KEDI. (usually in February or March, during this time KEDI has to manage itself on a temporary budget hoping that the MOE will not alter drastically the budget submitted.

There are always possibilities of change in every step but particularly in steps (3), (4) and (5). Although the KEDI budget is at all times visible as a separate item, it is submitted to the National Assembly as a part of the requirements of the MOE. Thus budgetary review within the Ministry is important because it is at that point that KEDI 's place in the MOE priorities is determined. Especially in the above steps (3), (4) and (5), KEDI has to explain the projects directly to the authorities concerned and convince them of the importance of the projects. And KEDI 's spending is subject to annual inspection by the MOE and occasionally to an inspection by the Bureau of Inspection every three or four years.

In order to deal with different organizations and different persons involved in the ladder of budgetary flow, an institution needs to have, especially in the Korean context, a well established human network. In other words, KEDI needs to be good in political matters. Hence, KEDI can hardly refuse what the MOE and other politically strong figures request. For example, the position of the Director of Administration Department of KEDI has been filled by ones who resigned from the MOE. Such matters need consideration in most organizations; hence there seems little need to mention it further. The problem is to what degree such relationships need to be maintained.

KEDI 's concerns include the organizational relationship with other organizations and the organizational policy within itself. As mentioned above KEDI 's relationship to MOE is, in a word, more of a master and servant relationship than that enjoyed by other research arm organizations of the government, e.g., the Korean Institute for Science and Technology (KIST), the Ministry of Science and Technology, the Korean Development Institute (KDI) and the Bureau of Economic Planning Board. In these other institutes the characteristics of the work are very professional; hence, government officials say little about what kind of research

take place and how research should be done. The general understanding is that science and economics are professional but education is not. That is one reason why KEDI has been so anxious to secure as many Ph. D.s as possible.

One unique situation with the MOE is that because there are so many social concerns and criticisms about the MOE, that they sometimes ask of KEDI not professional recommendations or opinions but justifications for the policies that they have already pronounced, without serious considerations for the tasks they want to do, usually because of specific political concerns. In this case, it seems, MOE's motive is to utilize the professionalism of KEDI as a legitimating source for the public. For the researchers, this could be the opportunity for resistance or for framing research based on educational theories or principles. But in reality, the leaders of KEDI are not strong enough to do otherwise. One example was the study on repeaters about which I do not need to say much. In this instance, KEDI suffered much social blame and became a scapegoat.

In time, as such occasions accumulated, KEDI came to be known widely and secured some prestige as a professional organization. Also MOE's attitude towards KEDI changed from antagonistic and authoritative to friendly and democratic. However, not only the budget but also the research products continued to remain under MOE's surveillance. Especially, research results which would incite social concerns are under a strict control.

While KEDI became close to MOE, the sub-organizations under MOE, e.g., regional school boards and schools became more friendly towards KEDI. Actually most of these organizations, particularly teachers, were cooperative from the beginning with KEDI's projects. In a highly centralized bureaucratic society like Korea, the level of organization means much. KEDI's position in relation with these organizations has been upgraded considerably since the early period. Especially, since the task of curriculum development and textbook compilation was delegated to KEDI in 1979, these organizations began to look to KEDI for leadership. Sometimes KEDI's official letters are considered as almost as significant as MOE's. This means that KEDI is now in a position to directly affect school education in Korea.

There is no direct relationships made between KEDI and any tertiary institutes on an organizational basis. But on an individual basis, usually related with KEDI's projects, there is very active participation of professionals mostly from universities. Actually most professors like to join KEDI's projects not only because of the honorarium but more importantly they can get academic credit by contributing to an important project (like curriculum development) of their area of concern or by having their name known in that area. Most KEDI projects need, in one way or another, professional input from the academics. Because of this, most top scholars in almost all areas of education have close relationships with KEDI.

But there are individual differences in which those who are cooperative and helpful tend to be called upon frequently and those who are not are disregarded. In the latter's case, if they think themselves as authorities in the area and yet are not called upon by KEDI, they tend to foster antagonistic views towards KEDI. Even though KEDI has tried to be unbiased, there such cases did happen. Because of this KEDI has experienced some difficulties. As will be reviewed in more detail in the curriculum section the decision to gather a consulting committee, or writers, is usually made by the project leader (senior researcher) for whom it is impossible to gather all the so-called authorities in the related area. In order to do the designated work more effectively, they have to select the best task forces, but in so doing they have to consider the political aspect as well.

In the Korean setting, as reviewed in the previous chapter, for some professors what is happening in KEDI cannot be ignored; they must have some say and intervene in KEDI's project. In general, KEDI is in a very advantageous position able to get the necessary help from academic circles. Partly because of this, KEDI's staff have on the whole a good relationship with the academic staff of most universities. In a sense it can be said that KEDI is playing the role of secretariat for academics in Korean education.

As an organization, KEDI is very young, and in an organizational sense yet to establish a tradition. But few concerns in relation with organizational policy have been raised.

Within the past ten years KEDI's organizational structure has changed six times (KEDI's 10:435-9), of which five times ('74, '75, '76, '79, '80) were drastic ones. And almost every year a large scale personnel reappointment has taken place. Possible explanations are that; (1) the organization has grown rapidly, (2) accordingly, the tasks and the procedures have become diversified, (3) it has tried to allocate the right person to the right post. But it is also undeniable, in my opinion, that; (1) to a large extent, it has been a continuation of trial and error, (2) structure has been changed according to the persons involved, not necessarily fitting a person to a post but vice versa.

Whether or not the leaders of KEDI had a specific intent in such a policy is not scrutable. But they may have had some theory or idea about efficient organizational management. Organizational flexibility and repeated change may bring efficiency by giving impetus to work and responding pliably to the given situation, but at the same time they may cause instability for both the organization and the individuals in it and irresponsibility in their work.

But the organizational structure itself does not tell much about how the organization functions. KEDI, like all other organizations in Korea, is basically a bureaucratic organization. There are no deviations from authority line relationship. The President deals directly with the Directors of Departments on substantive project matters but the Vice-President is in the authority line on internal administrative affairs. All the project schedules need to get approval along the line of authority; Director, Vice-President, Auditor(until 1979) and President. But for internal administrative affairs, except big and important matters, authority has been delegated to the Vice-President. For research projects, the President discusses and approves the basic schedule but the actual disbursement is made by the Vice-President (until 1979, the final defrayment was made by the Auditor's approval after the Vice-President). For a certain amount of money, the authority for actual disbursement was recently delegated to the Directors.

For the first three years of KEDI there were two Vice-Presidents, one in charge of research and the other of administration. As mentioned earlier, the political situation related to KEDI 's establishment forced KEDI to fill the two important administrative positions with men from the outside; the Auditor by the political henchman of the then Minister of Education[45] and the administrative Vice-President by a retired one star general. The next administrative Vice-President, who later became the Vice-President after the two Vice-President positions were integrated to one early 1974 until 1981, was a brother of the then Deputy Prime Minister (the Minister of EPB).

Because of such an intricate infrastructural conditions, the President exerted his authority in the area of research. Also, unseen conflicts between different categories of personnel, e.g., researcher, administrative staff, broadcasting staff, contributed to add to the organization's problem. Naturally there is very little lateral movement across structural lines, a condition which creates problems of coordination, particularly for the complex variety of products and services associated with the E-M Project. Coordination between the researchers who develop print instructional materials including script, and those who develop radio and television programs, has been very difficult and an ingrained problem well known even outside of KEDI.

Personnel Management

As a principle of personnel management, the researchers appear to think that by expediting the manpower flow their research forces will always be rejuvenated. One example is that by treating the doctoral degree holders exceptionally well KEDI has encouraged its researchers to leave for study toward that degree.

In Korea, seniority and experience have traditionally been the most important criteria for promotion, and this tradition is still very strongly kept in most organizations; e.g., government, schools, military and private companies. Of course in the recent era, while the

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[45]He was a Congressman for a number of terms and the Auditor was his electoral secretariat.

Korean society has become more competitive, these organizations in turn adopted a number of auxiliary techniques to select more capable candidates for promotion, among which the most popular ones are merit rating and the offering of tests. But still, the years of experience according to the level of position, are the primary precondition for promotion in most cases. While KEDI has no merit rating system, it used to offer a test in the case of new employees, and began to offer a test for promotion to the level of senior researcher in 1978.

The general personnel management policy of KEDI is not much different from that of other organizations. But an exception is made in the case of doctorates. Until a few years ago, doctoral degree holders, regardless of other qualifications, were welcomed any time and hired at least as a senior researcher. In terms of rank and grade[46], the doctoral degree holders can easily jump ten years of experience[47]. Presidential prerogative for the hiring or promotion of research personnel is secured by regulation in KEDI.

The reason for this protection is that the salary for researchers in KEDI could not compete with that of university professors[48]. The appeal of the universities is not only monetary. University professors enjoy great prestige in Korea and their time is much less restricted than is the case in KEDI. Therefore, qualified researchers try to get hired by the universities. In order to attract qualified researchers at the higher professional levels KEDI had to have a special policy, particularly for doctoral degree holders.

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[46] Each rank has a number of grades, which is now unified from bottom to top, e.g., senior researcher starts from grade 14, and one grade is equivalent to one year of experience. Researcher ranks are; Chief Researcher, Senior Researcher, Head Researcher, Researcher, Associate Researcher, Research Assistant or Intern.

[47] For example, there was an Intern (graduate students are hired as Interns for two years and on graduation they become a researcher, grade three) who was twenty five when he left for the U.S. for study. Two years later he came back with a Ph.D. degree and became a senior researcher which means that he jumped ten years of experience by the degree.

[48] Recently they made it, I heard, equivalent to the university level.

Table 1: KEDI Personnel Statistics for Ten Years (Sept. 1972 - Sept. 1982)

Job Category	No. of Retired Employees	No. of Incumbent Employees	Average Years of Service
Research Staff	171	135	3.19
Administrative Staff	104	125	4.13
Broadcasting Staff	102	153	3.24
Total	377	413	3.48

The above table shows that the biggest personnel shift occurred in the case of researchers with an average service record of about three years. There were fourteen doctorates who left KEDI within two years after being employed, eight of whom left within a year. This may raise a question of stability of the research tradition in a research organization.

The situation is more or less the same in case of broadcasting staff. Actually for the first few years, KEDI was able to secure qualified researchers. The researchers could not but accept what their mentors or seniors asked, that is to work with KEDI, because the human relationships are very important in the Korean context. That is, a good relationship with their mentors may greatly affect their finding a position in the universities later. Besides, they were relatively young at that time and it was hard to find a position in universities where not many vacancies were available. Also, there were chances for them to study further in the U.S. as long as they would keep close contact with their mentors. The FSU training program, for example, was a strong attraction for the young and able researchers at that time.

However, as the universities kept expanding rapidly in order to accommodate the ever increasing high school graduates, especially by the end of 1970s, the situation changed. The chances were wide open at the universities, particularly for the doctoral degree holders. In spite of KEDI 's special policy for maintaining high quality staff, it was not easy to hold them at KEDI. Among those who got doctoral degrees in relation with the FSU program, only one remains in KEDI now.

But for the broadcasting department, it was very difficult from the beginning to secure able and experienced staff as the salaries in other broadcasting agencies like KBS, MBC, DBS, CBC were incommensurable with those of KEDI[49]. Thus a pejorative expression was openly said among themselves -- a gathering of remnants or outcasts from other broadcasting agencies. Not only the salaries but also the budget for the developing of a unit program, be it TV or radio, has been far less than what other agencies put in, and the hardware was of lesser quality. These last two points were the excuses used for being unable to make good programs as requested by researchers, who tended to be somewhat idealistic. They used to say that "the situation does not allow us to make as good a program as the researchers wanted. If time, money and appliances were available, as they are in the other broadcasting agencies, we could make the program however they want."

Furthermore, because of the T-COM's failure it was impossible to air the programs developed for the first three years[50]. Feedback could not be obtained and the program production during that time was just an exercise. Besides, other broadcasting agencies kept their eyes on the young and capable staff of KEDI so they could save the risk and efforts involved in recruiting and training the new crews.

The administrative staff in Korea are generally considered as non-professional. Because of this, the administrative personnel in KEDI are vulnerable to the target of requests from

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[49] The salary gap was almost double in the initial stage and there is still a significant difference between the two.

[50] After that, the educational programs developed by KEDI began to be aired through the KBS(Korean Broadcating Service) landed transmission system. But the channels(UHF in case of TV and second or third channel for radio whose coverage is limited than the VHF or the Radio First) are still limited.

outside authorities. Also, it is not easy to find a similar job in other organizations, because there are always plenty of administrators. Therefore, people in KEDI kept a record of the longest years of service. Also, the administrative staff are paid a little less than the researchers or broadcasting staff. Altogether, the cooperation between the administrative staff and researchers is not consistent. The situation, by and large, is the same in other educational organizations. Either in MOE or in regional school boards most positions, except curriculum related positions, are filled with administrative personnel.

Even though the policy for doctoral degree holders was indispensable in order to enhance the research capability and to upgrade the institutional prestige tantamount to other governmental research arm institutes, it caused peculiar problems in intrastructural relationships in the Korean context. Because the relationships they previously made when they were students at universities(there are only few alumni groups) were based on seniority, when their positions become reversed in KEDI, they confront very awkward situations for both sides. For example, when a young man sits in a higher position than his previous senior, it is not easy for the former to deal with the latter and vice versa. This awkwardness is due to the close and interrelated relationship of the unique Korean tradition. For this, Masoner et al.(1979: 108) suggested a Western tradition; "Since KEDI staff will hold essentially professional-academic perceptions of themselves and work, an internal culture may develop which creates a less familial style, less formality of structure, and an enlarged decision input.(This is particularly true because of the number of foreign trained staff)."

The rapid shift of research staff, whatever the reasons may be, causes the organizational tradition to deteriorate and may cause irresponsibility in the researchers' work because they lack a sense of belonging to the organization. They may foster a feeling that the research job in KEDI is not a permanent but a transitional one. Actually there were a lot of doctorates who joined KEDI right after returning from foreign countries where they studied, and stayed only until they got a position at a university. In an extreme case, there was one who stayed at KEDI for only one month. Related to this, there was inner criticism about a previous

President and Vice-President who both served KEDI for almost ten years. Yet neither were considered as a "man of KEDI but as a guest" because they were on leave from their original institutes to where they eventually went back. The reason is that the position in KEDI is not permanent[51] and is also vulnerable to political changes, while their original position as professor of a national university is a permanent job.

In fact, the political vulnerability of KEDI's leading positions poses a critical problem for the stability and direction of the organization. KEDI in its legal status is a Public Corporation. Any corporation, be it private or public, has to have a board of trustees and a statute(Articles of Incorporation) as a governing rule of the organization in order to register and function according to law. In the case of a private corporation, the board members are at the owner's choice, making the board purely a formal body. But in a public corporation, the compostion of board members determines the characteristics of the organization. Five out of ten trustee members of KEDI are ex-officio MOE officials, including ex-officio Chairman of the Board by the Minister of Education[52]. The Board of Trustees of KEDI is officially charged with review and approval in the following areas(Masoner et al. : 63):

(1) Budget development and implementation

(2) General program planning

(3) Appointment and dismissal of KEDI officers

(4) Property acquisition and disposition

(5) Debt assumption and management

(6) Changes in Articles of Incorporation

(7) Changes in By-Laws

(8) Dissolution of the corporation

(9) Matters referred to the Board or required by changes in the Articles of Incorporation.

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[51] The President is three year term base but there is no term for Vice-President.
[52]In early 1980, there was a brave Minister of Education who changed the Articles of Incorporation of KEDI in order to give autonomous management power to KEDI by resigning herself as the automatic Chairman of the Board. But unfortunately she served as the Minister only for three months, the shortest record among the Ministers of MOE.

In the above item (3) are included appointments of the President, Vice-President and Directors of KEDI. This indicates the degree of dependency of KEDI on MOE.

General Management

Most research projects in KEDI, with rare exception, have been established upon a yearly base. That is, research projects are usually planned and approved before the new fiscal year starts and should be carried out within that scheduled year, from January to December. The reasons are that firstly the budget is approved and allocated on a yearly base and there is no guarantee for the next year, and secondly the government officials in general have little understanding about the characteristics of research. They tend to think that research is a simple mechanical job, i.e., planning, data collecting or experimenting, analyzing and report writing. So their attitude could be characterized as: "Why should it not be done in a year? Change your plan and do it!" Although KEDI became a large and steady organization and government attitudes changed a lot to accommodate an increased number of continuing projects, the yearly projects still outnumber continuing projects.

At the same time KEDI developed its own mechanism of management; putting a heavy emphasis on products with rigid administrative procedures and ignoring quality. The quality control of research has been a serious internal concern to KEDI, particularly since the position of Research Vice-President disappeared in 1975. The leaders of KEDI, including Directors, are too busy with either administrative tasks or outside relationships to pay attention to the quality of research. Besides, there tends to be too many research projects compared to the research resources. For the control of research quality, therefore, they rely heavily on various forms of consulting. But these consultants are not actually responsible for the research. In the final analysis, the responsibility is laid on the project leader and the participating researchers. In a sense this is very natural and may become sound procedure as now KEDI is matured and so are, I believe, the researchers. But initially most researchers and project leaders alike had not enough experience in either research or teaching.

One rarely disclosed phenomenon is that whatever is written or done by a doctorate, few questions are raised and is not open to criticism. In a sense the title of doctorate guarantees the quality of research. This is more true to those external to KEDI, because the degree, they believe is traditionally the apex of one's profession[53]. Also in a highly authoritative and face-respect society like Korea, people are ready to do their best to keep or save face for the doctoral title, not necessarily the person. It is from this tradition that people almost unconditionally pay respect to socially respectful positions like Minister, Congressman, Professor, etc., regardless of the persons in the positions. This may not be unrelated to the tradition of respect that existed for the gentry classes in traditional Korea. Such a trend has been changed recently, because there are many doctorates to allow the universities to select among applicants for their professorial staff. But outside of the academic circle, the beliefs of society at large appear to remain the same. The title or position itself is more highly regarded than it is in developed countries.

Related to this is the strong preference for outside authorities, especially foreign (that is the U.S. in most cases) authorities. How decisive an effect the FSU study had in establishing

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[53] There are two kinds of doctors: one is called as "old system doctor" which is offered to those who contributed a lot to one's own academic area through a number of writings and services, usually as a professor, for some decades. Therefore, one gets the degree at one's old age, usually over fifty, which is, not the honor degree though, very much like the tradition of Tokyo University; the other is a "new system doctor" which was recently offered to the fairly young, with an emphasis on graduate work. This practice flourished in 1970s when there was a need to open the gates of the doctorate to the young as the number of foreign trained doctorates increased. The social esteem for the doctorate used to be given to the former case, but a similar trend is, in general, retained in the latter case as well.

While there are no more "old system doctors" produced and the number of the "new system doctors" has rapidly increased in recent years, there appeared different categorizations of doctorate; the "foreign made doctor" and the "domestic made doctor." The social preference, in academic circles as well, goes to the former case. The unconditional social esteem for doctors, particularly for the "foreign made doctors," sometimes produced a farce in which some people bought the doctoral degree from unknown, therefore counterfeit, universities in foreign countries and were found out as frauds. According to the Korea Times(Nov. 13, 1985), the first case of such was reported in the paper on Apr. 12, 1969. Included at that time were higher government officials, professors, congressmen, clergymen and lawyers who bought fraudulent degrees from the unknown universities in Hong Kong, Italy, the U.S. and England, and a case was reported on Nov. 13, 1985 that a professor who served seven years with a forged doctoral degree was fired and put in jail.

KEDI has already been mentioned. Since KEDI 's inception there have been close contacts with U.S. scholars either associated with the FSU training program or in the forms of seminar, consultation or honorary visits, including notably Morgan and Gane. Another example of this was an evaluation study of KEDI entitled "Analytical Case Study of KEDI" conducted during July 1975 - December 1978, by a group of U.S. scholars directed by Paul H. Masoner. This group included two Koreans among its twelve members[54].

The study dealt mainly with the status quo of the organization as it has evolved, and also tried to justify the FSU study with an emphasis on the cost analysis of the E-M Project. Two quotes would suffice to show this;

> ...KEDI is evolving as a comprehensive educational research and development center -- something neither advocated nor considered desireable by the FSU study. Much of the substance of the original Report remains, however, even while KEDI becomes more and more an indigenous response to its unique environment.(p.62)

> [about the E-M Project] In analyzing an experimental system that involves a heavy initial expenditure on facilities with a relatively low level of participation, one can expect rather large initial per-student costs to be incurred. Therefore, it is useful to project costs to the future to determine the pattern of costs that decision-makers face. This analysis was concentrated upon seven specific immediate system outputs that decision-makers would be interested in: number of students served, television programs produced, television programs broadcast, radio programs produced, radio programs broadcast, hours of instruction in student workbooks....
>
> This analysis revealed that there was a rather large level of fixed costs. Therefore, as student involvement quadrupled in the four years of operation, the average costs per student(without media) declined from $24.08 to $7.15. The average costs per student (with media -- program production but no transmission) declined from $31.18 to $9.68. The average costs per student (with media -- progam production and hypothetical transmission) declined from $78.42 to $21.56. All of these estimates reveal the dramatic effects of increasing enrollment in a system with large equipment and facility investments. In projecting costs it was found that the cost would further decline to $4.77 per student if <u>all</u> students were covered by the system and a heavy use of both television and radio was made. (pp. 336-7)

Another point is that Masoner, at the end of his study, suggested a change of organizational structure which was different from KEDI 's idea(Ibid. 75-77), and what KEDI adopted was Masoner's plan (KEDI 's 10: 437). The product orientation, rigid and

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[54]The title page of the final report of the study states: "The Analytical Case Study of KEDI has been conducted by the American Association of Colleges for Teacher Education in cooperation with the University of Pittsburgh under the terms of a Basic Ordering Agreement with the USAID under the direction of the Educational Technology and Education Group, Development Support Bureau, and the Bureau for Asia/AID."

systematized administrative procedures, low quality, accreditability to title or position or to the outside authorities, expansionism -- these are all aspects of the developmental philosophy to date.

D. Research Projects of KEDI

During the first ten years KEDI conducted a total of 252 research projects. The number of projects conducted yearly are shown on the following tables which are organized according to the research area, and the instructional materials produced by KEDI.

TABLE 2: Number of Research Projects Conducted by KEDI

Year	Area				Total
	Curr. Research	Educational Policies	Basic Research	Broadcasting Research	
1973	4	5	1	0	10
74	11	4	0	0	15
75	12	4	1	0	17
76	13	2	5	1	21
77	7	5	3	1	16
78	6	7	4	1	18
79	17	11	13	1	42
80	10	15	8	1	34
81	20	13	10	0	43
82	13	8	12	3	36
Total	113	74	57	8	252

(Analyzed from KEDI's 10: 456-472)

TABLE 3: Number of Learning Materials Produced by KEDI

	Instructional Materials*	Texts**	Total
1973	10	0	10
74	16	20	36
75	187	23	210
76	163	18	181
77	154	35	189
78	197	36	233
79	187	33	220
80	225	75	300
81	34	174	208
82	35	76	111
Total	1208	490	1698

*Teacher's Guide, Student's Workbook, TV & Radio Guides, Radio Instruction Guide.
**Textbooks for 1-12 Graders and Industrial, Physical & Correspondence High School.
(Analyzed from KEDI's 10: 472-480)

These tables show the general trend is toward an increased emphasis upon curriculum research and related instructional materials production, but the tables do not tell much about the nature of the research. Even though there are differences in terms of the scale of the project, e.g., budget, number of researchers who participated and project duration, not much research has been done in the basic and the broadcasting areas. Considering the facts that KEDI started with the E-M Project and the suggested title for the organization by the Comprehensive Long-Range Educational Plan Commission was the "Curriculum Development Center", the trend that appears in the tables would be natural. The broadcasting area has been considered, particularly by government officials, as much less the objective of research but a field of action. The reason for the rapid drop in Instructional Material in 1981 is that the E-M Project, after 8 years of experimentation, finally desisted. Some of the textbooks before 1980 were for the grade school level but mostly for the Air and Correspondence High School students. The sudden increase of textbooks in 1981 was due to the relegation of the task of

textbook compilation from MOE to KEDI in 1979. But not all the texts were relegated to KEDI as some of them for 7-12 graders, depending on the subject, were relegated to other institutes as well, e.g., to the Seoul National University (SNU).

The majority of curriculum research in the E-M Prpject dealt with the problems of effectiveness of specific programs. The main concern was about task methodology such as: What is the best way to have students reach a set goal of a unit task?; Which method is better than the others, and in what ways, to achieve that goal?; How should the learning sequence be organized and presented? and so on.

The research projects in the area of educational policies are mostly what MOE requested to carry out as basic policy data for implementing or revising educational policies in order to meet social demands. The policy of educational research in KEDI seems to be in accordance with the view that education is a means or for the service of something else. Examples are found in the projects such as; "Prospect and Task of Educational Development(1978)", "Educational Role for the Development of Politics and Society(1979)", "Educational Planning for the Fourth Economic Development Plan(1976)","Long-Range Manpower Projection(1978)."

The "Prospect and Task of Educational Development" analyzed the educational tasks which should be utilized for the realization of developmental goals dictated by the social system. In this report, Chang Sang Ho(1983:407) criticizes, "words like education for the development of politics, economics, society or culture are found but not the other way around." "Education", he continues, "stays at the auxiliary and subservient position to other social tasks. 'Educational Development' is defined in terms of efficacy of producing needed manpower for social functions other than education itself." From around 1970, public seminars were often held on the subject of "National Development and Education." As a consequence, research was carried out searching for ways of enhancing human factors which were supposed to relate to economic development, e.g., achievement motive, rational thinking, creativity, independent character (Kim, 1983: 231). Kim criticizes that the reason education became the

means for the development of other social aspects is not only because of social conditions but also that educators induced themselves in that way by providing necessary theories and researches(Kim, Ibid: 233).

Basic research projects are by and large the same. Of course, there were research projects dealing with "what" rather than "how". But the great majority of KEDI 's research projects are for the latter. And the predominant methodology is that provided by the behavioral sciences, e.g.; experimentation, survey, statistical analysis. Chang criticizes again the KEDI projects in general: "Most research projects so far dealt with in KEDI were about educational treatment for the solving of social problems." (Chang, 1983:409)

E. Curriculum Development of KEDI

The "Curriculum" Dr. Chung wrote in 1956 was based on the Tylerian classical model[55]. Other influencial curriculum scholars in Korea, e.g., Yung Dug Lee[56], Ho Kwon Kim[57], Jong Kyeu Ham are in the same line with Dr. Chung. A few exceptions began to appear in around 1970, e.g., Hong Woo Lee, Kyeung Sub Lee inclined to the "discipline centered curriculum."(Kim, 228) Kim Jong Seu tried to describe curriculum in a broader sense including the latent curiculum, and classified curriculum as being upon the national level, teacher level and student level. Lee Sang Joo argues the importance of the decision making processes in curriculum development; curriculum depends upon the philosophy and background of an individual or group who participate in curriculum development. Kim Soon Taek suggests separation of instruction from curriculum as a way of clarifying the curriculum discussions. The active discussions of these different views started in the middle of 1970s, yet most of them follow and adhere to Tylerian model as a basic framework in the process of curriculum development, and their assertions, in most cases, can not go beyond introducing theories and

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[55]He studied with Ralph W, Tyler at the University of Chicago.(Kim, 1983:217)
[56]President of KEDI for nine years.
[57]Research Vice-President of KEDI for first three years. He also developed the Korean version of Mastery Learning Model in 1968, based on the ideas of B.S, Bloom and John B. Carroll.(Kim, 258)

ideas already developed. That is one reason why until recently the Korean curiculum remained under the Tylerian classical model.

In order to understand the work of KEDI 's curriculum development, it will first be necessary to review the general trends of curriculum development and research in Korea.

Review of Curriculum Development in Korea

There are different ways of classifying and explaining Korean curriculum development according to the scholars' perspectives, but most of them can be grouped in the following periods of curriculum development and revision; Searching Period(1945-1954), The First Period(1955-1962), The Second Period(1963-1972), The Third Period(1973-1981) and The Fourth Period(1982-present). (Lee Yung Dug, 1979:2; Lee Don Hee, 1983:142-151, Kim Soon Taek, 1983:207-224).

A. The Searching Period(1945-1954)

Some called this the period of "educational guides" which were made by the U.S. military government as temporary curricula. Even though the Korean government enacted Educational Law in 1949, one year after the establishment of the goverment, formal curriculum development was delayed due to the Korean War, so the Educational Guides remained for about ten years.

The Educational Guides aimed to implant the American democratic ideals along with an emphasis on the National Language which was banned during Japanese control. Even though the Education Law set the prime purpose of education on nurturing the "Whole Round Person[51]" which still remains in the Law, Korean scholars were not ready to incorporate traditional education ideals into the curriculum even in later times. Education at that time, as the then Minister of Education, Oh Chun Suk, said, "was simply an imitation of the U.S. education because of teachers' lack of understanding and incapability in accommodating the

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[51]Which was derived from the legend of Dan Geun who was said to have built the first tribal state in Korea 2300 B.C., and means the person who is benevolent and helpful to all other people.

democratic ideal into the process of education(in Kim, 1983:209)."

Education thus adopted the "new education" of the U.S. superficially, but in reality remained in the Japanese style with minor changes in its contents. But the influence of the U.S. Education Mission as mentioned earlier was overwhelming and continued to be so in later curriculum development due to the lack of identity and capability of Korean scholars at that time.

B. The First Period(1955-1962)

The Korean government developed its first curriculum by their own hand in 1954 which was supposed to be enacted from 1955. The content of it was imported from the U.S. by the recommendation of the U.S. Education Commission. Most scholars characterize this period as the period of "child-centered curriculum" which was influenced by early progressivism in the U.S. Therefore, much emphasis was given to children's experiences based on knowledge, techniques and attitude necessary for practical social life. Yet education in practice remained in a subject matter centered curriculum. Even the word for curriculum was translated as the "Subject Matter Task." This duality, the difference between documented curriculum and practice, became then a unique characteristic of Korean education. Curriculum as subject matter has been the common understanding of most Korean teachers regardless of manifested theory or philosophy in the curriculum(Kim, 275).

C. The Second Period(1963-1972)

This was just an extension of the "experience-centered curriculum" of the First Period with an emphasis on the community school concept influenced by the late progressivism of the U.S. Concepts of productivity, utility and community were emphasized. This was the time when, as Hong Woong Sun said(in Kim:217), "Korean education was able to interpret and accept systematically the progressive education of the U.S." This was also influenced by the "Curriculum" written by Dr. Chung. "From this period," Kim interprets (1983: 218), "Korean education became to be governed by the Tylerian classical model with emphasis on systematic procedure of organizing curriculum, i.e., the curriculum development model rather than

theories of what should be taught in schools." Yet the education in practice remained in the subject matter concept of curriculum because of not only the teachers' and parents' familiarity with subjects but also students' practical needs to prepare for the entrance examinations to higher shools.

D. The Third Period(1973-1981)

This is called the period of "discipline-centered curriculum." The changes that took place from the experience-centered to the discipline-centered curriculum in the U.S. around 1960 instigated by Sputnik, was introduced to Korea about a decade later. It can be said that while Korea was just beginning to understand the experience-centered curriculum, the U.S. had already changed its curriculum to the discipline-centered. This criticism and some experiences of experimentation with the disciplinary materials like SMSG, PSSC and CHEM in mathematics and sciences in the end of the 1960s, led curriculum change to discipline-centered programs, but it was not much more than following a fad. Because, as Kim indicated (Ibid: 219), no academic discussions took place nor did attention gathering papers diffuse about the new curriculum ideas either around 1960 or before the change of curriculum. In fact, the significant academic discussion took place, according to Kim, in 1974 in the Association of Korean Curriculum Studies when Lee Hong Woo, an advocate of Bruner, criticized curriculum development of having been under control of an "objective model" based on Tyler, Bloom and Mager, thus inciting the majority of scholars who had been imbued with the Tylerian classical model for about thirty years. Even until this period, therefore, curriculum could be said to have been imported directly from the U.S., and the curriculum and textbook revision was made in a state where the scholars were not theoretically mature. So the "discipline-centered curriculum" like other periods of curriculum appeared only in document, with almost no research having been done for the search of the structure of knowledge.

E. The Fourth Period(1982-present)

At this point scholars, particularly those attached to KEDI, are given direct access to the theories and information of the U.S. So it appears natural to follow again the fad in the

U.S., a response that is quickened by the immediacy of modern communications and travel opportunities. The curriculum of the present period might be termed as the "human-centered curriculum." If we seek to describe the inner reason for this, it would be the common efforts to restore the human quality which became diminished as Korean society became increasingly more technological and the competition for the entrance exams to higher school became even more severe.

The present period is different from the previous ones in that, in preparing to entrust the task of curriculum development to KEDI from MOE, preparatory research for the change has been made by KEDI, e.g.;

- A Seminar for Searching of Curriculum Development Principles (1978)
- An Amelioration Study for Curriculum Policy and Management(1978)
- A Seminar for Searching of Curriculum Direction(1979)
- An Analytical Study of Primary School Curriculum(1979)
- An Analytical Study of Secondary School Curriculum(1979)
- International Comparative Study of Curriculum(1979)
- A seminar for Searching of Social Need for the School Objectives(1979)
- A Survey of Middle School Curriculum Management(1980)
- Basic Research for the Development of Curriculum and Textbook I, II and III(1980)

(KEDI's 10: 123-126)

But Kim (1983: 224) doubts these research results have contributed to curriculum development: this research has been carried out at the same time as the reconstruction of the preliminary curriculum; the research did not deal with the Particular level[59]; and they were weak as research in general. Other problems were that when the curriculum and textbooks were developed the General and the Particular were written at the same time.

Kim (Ibid: 275) summarizes the problems of curriculum research in Korea; (1)curriculum has been revised without research on curriculum objectives and content, (2)no

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[59] The curriculum consists of two parts; the General and the Particular.

research has been done, even afterward, for the reasons or situations in which the curriculum revisions were being made, (3)no evaluation research has been done for each curriculum, (4)"subject-matter-centered" curriculum has been maintained regardless of the manifested curriculum, (5)the majority of research consists of ameliorative research rather than descriptive oriented research.

In general, if we see "discipline-centered" as basically "subject-centered" and "human-centered" in a broad sense as "experience-centered," then the curriculum changes during this time in Korea, subject - experience - discipline - human, can be said to have depended on a difference of emphasis. At the same time it can be said that some seventy years of experiences and philosophical changes in the U.S. have affected Korean education within some thirty or more years. But as mentioned many times, regardless of philosophical changes in the curriculum, education in practice has remained in the category of "subject-matter-centered" curriculum. This is mainly because curriculum theories were not able to be diffused through teachers and society because of negative conditions like over-crowded classrooms and the over-heated competition of entrance exams to higher level schools. But at the same time, I think, it was also due to the Japanese and Korean traditional view of education as being knowledge inculcated by teachers in the classroom.

The Elementary-Middle School Development Project

The E-M Project was the single largest research project in Korea in terms of budget, number of participants and the duration of the research. It lasted for eight years[60], and at the end of the project one-third of all the primary schools of the nation had participated in the Comprehensive Demonstration, which was yet an experimentation. The number of researchers who participated in the project, not counting the broadcasting and administrative staff, shows how big the project was;

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[60] The proposal aimed for five years.

TABLE 4: Number of Researchers Involved in E-M Project

Year	72	73	74	75	76	77	78
Senior Researcher	3	2	3	3	8	11	12
Researcher	15	18	23	29	30	20	19
Associate Researcher	0	0	23	17	9	9	9
Intern	6	6	4	3	2	1	0
Total	24	26	53	52	49	41	40

(Masoner et al.: 154)

*A research section consists of an average 5-7 researchers including one senior researcher as the section chief and project leader, and carries out 2-4 research projects per year.

Even though KEDI was started and expanded rapidly as a research organization with this project, in the final analysis it should be said that the project was but a large scale effort of trial and error.

In the processes of economic development, we can see many cases in which large scale construction projects, (e.g., bridge or factory, stopped when only half finished or remaining as a forlorn edifice) were eventually destroyed mainly due to unrealistic and reckless planning. In this case it turned out to be mostly a pure economic loss. Unlike construction projects, the E-M Project can not be described as a pure loss. It helped to enhance close relationships among KEDI, schools, regional boards of education, MOE and the academic circle. It gave incitement to the establishment of educational policies and academic development, and helped to

accumulate educational research capabilities. It also helped to establish bases for realization of educational broadcasting. Most of all it was the impetus for the development of KEDI as it is today. But it finished without any further considerations or any committed policies for the use of the research results for the development of Korean education. Nowhere did the study rationalize how it came to stop, nor explain the future plans for the project. Here we will review briefly the E-M Project as an example of curriculum development work of KEDI, and some related problems will be disclosed.

Masoner et al., in their final report, summarized the E-M Project as follows (p.14);

> The E-M Project has been the major task of KEDI since KEDI's establishment in 1972. The project is concerned with the development of a new educational system for the primary and middle schools that will provide educational programs of high quality and that will lead to the solution of pressing problems facing Korean education. In order to accomplish these ambitious goals, KEDI has made major changes and improvements related to the curriculum, has developed new instructional and school management systems, and has produced an impressive array of new and innovative teaching-learning materials. In the course of the project, KEDI has enlisted the participation and support of a number of demonstration and cooperating schools which have served as the site for major demonstration and experimental efforts in the new educational system. Important features of the new system are (1) a general flow model of the instructional process with five stages -- planning, diagnosis, teaching/learning, extended learning, and evaluation, (2) the application of the mastery learning concept, and (3) extensive untilization of radio and television in the instructional process.
>
> Other tasks of KEDI related to the E-M Project included the development of new pre-service and in-service programs of teacher training applicable to the new educational system; the operation of workshops, conferences, and seminars for diffusing the new program; and the development of a plan for nationwide implementation.

In the above quote, the underlined(mine) seemed to be decorative, because the Third Period curriculum was promulgated on February 14, 1973(Kim, 1983: 216, 218) which means that the E-M Project started(Sep. 1972) when the new curriculum was almost at the final stage of its revision. Furthermore KEDI had no access to participation in curriculum development or revision at that time, whose jurisdiction belonged to the MOE.

It seemed to be obvious that they, the project planners, had a notion that educational quality can be achieved through a systematic programming of the method, e.g., instructional and school management systems, innovative teaching-learning materials, and utilizing technological aids. The overriding goal of the project was "to develop, test, revise and

implement a relevant, modern education system for the elementary and middle schools of Korea."(Masoner:122) The following Project Tasks and Goals confirms this(Masoner: 116-120);

Major E-M Project Tasks:
(1) Development and clarification of educational goals.

(2) Curriculum development.

(3) Development and production of textbooks and other learning materials.

(4) Research and implementation of teacher education programs.

(5) Design and demonstration of the instruction and school management system.

(6) Development and operation of educational television system.

(7) Research and development for expansion of social education system.

(8) Comprehensive research and development of educational policies.

E-M Project Goals:
(1) To develop new curricula that better reflect (a) Korean national ideals and needs, (b) a balance in terms of cognitive, moral and affective learning outcomes, and (c) modern knowledge and technological development and applications.

(2) To raise the current achievement level of all children.

(3) To raise the achievement level of children in the higher learning thought processes (as reflected in Bloom's taxonomy).

(4) To reduce the regional gaps in achievement by equalizing the educational opportunities of both urban and rural children.

(5) To provide educational opportunities for more children, especially in the middle school years.

(6) To improve the cost effectiveness of the educational system.

(7) To improve the accountability and credibility of the educational system to the general public in order to obtain more support for the new educational system.

These goals have become the "output goals" of the E-M Project and are, then, still the bases for the instructional design and evaluation of the project.

Regarding what is mentioned above about curriculum development, it appears they must have aimed to reflect the research results to the next curriculum revision. Yet, in the numerous research reports of the project, no mention was made about the idea of curriculum development. In the process of carrying out the project, there was virtually no room for them

to elucidate the curriculum but follow the extant curriculum as a given frame of reference because even if they had different ideas about the existing curriculum they would have had no way of doing away with it in the centralized educational system of Korea[61]. In fact, the project was started by analyzing and specifying current curriculum contents. The original implementation plan as it appeared in the USAID Loan proposal was changed a little bit in the actual plan of KEDI, but the two are by and large the same(Masoner et al. :120-122):

USAID Plan for Implementation:

(1) Analysis and evaluation of current curricula and instructional practices

(2) Design and development of new curricula and instructional system

(3) Development and construction of adequate measurement devices

(4) Development of instructional programs, materials, and aids

(5) Validation of learning programs and new instructional system

(6) Training for teachers, administrators, research and development personnel

(7) Development and installation of ITV system

(8) Production of developed ITV and other programmed materials and aids

(9) Public relations work and preparation for the nationwide implementation

KEDI's Plan for the Project Implementation:

(1) Conduct studies on educational goals

(2) Develop curriculum specifications

(3) Develop new instructional and learning materials

(4) Develop and demonstrate instructional and school management system

(5) Develop and operate educational Television and Radio sytems

(6) Develop and implement teacher training programs

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[61]For this Masoner et al. said as a decision made by KEDI; "There is another decision which will have an effect on the outcome of the project. This decision was to accept the recently revised elementary textbooks as a basis for the curriculum structure for the elementary portion of the E-M Project. This decision, which was a very practical as well as political one, has placed limitations on the KEDI staff in terms of quality of improvement of the educational outcomes." (p. 163)

(7) Conduct policy studies and diffusion activities

(8) Evaluate new education system

Again the above items (2) in the former and (1) in the latter can be seen as a "decorative." Thus almost the entire emphasis of the project was given to R & D and dissemination with main concerns of "how," usually following three steps of procedure; preliminary tryout, main experiment (plus revision) and diffusion. The five steps of the basic model of the project --planning, diagnosis, teaching/learning, extended learning, and evaluation-- was same as the Glaser's instructional model except dividing step three "instruction" into steps three and four, and a simplified version of KIRBS' Mastery Learning model(Kim, 1983: 256, 258, 262-263).

During the eight years they carried out four small scale tryouts(1973-1975), five comprehensive demonstrations(1975-1980), and they developed numerous instruction/learning materials according to different subject matter and grade levels. During the comprehensive demonstration, there were not only experimental and control groups but also cooperating schools which voluntarily used the instruction/learning materials. This was aimed to disseminate the developed learning materials step by step. In the case of experimental groups the materials were distributed free, but the cooperating schools had to buy these. The following table shows the number of schools that participated in the project.

TABLE 5: Summary Statistics of E-M Project

Small Scale Tryout

Order	I	II	III	IV
Year	'73.	'73.	'74.	'75.
Duration	(4 weeks)	(4 weeks)	(8 weeks)	(8 weeks)
No. of schools	2	3	2	2
(classes)	(12)	(21)	(11)	(14)
Grades	3, 5	2,	3	5
Subjects	Math. Sci	Math. Ethics, Korean	All(8 subjects)	All (9 subjects)

Comprehensive Demonstration

Order	I	II	III	IV	V	
From	'75. 8	'76. 3	'77. 3	'78. 3	'79. 3	'80. 3
(for)	(6 mo)	(1 yr)	(1 yr)	(1 yr)	(1 yr)	(1 yr)
Grades	3,5	3,4,5	3,4,5,6	2-6	1-6	1-6
Subjects	all	all	all	all	all	all
No. of Experi.	14	16	16	18	18	
Sch.(cl.)	(163)	(264)	(382)	(595)	(726)	
No. of Coop.	127	145	164	228	268	234
Sch.(cl.)	(696)	(1,363)	(2,670)	(3,612)	(4,532)	(5970)

(KEDI's 10: 80, 82, 87)

Other things involved in the project were the teacher training and school management system which purported to incorporate the KEDI model and learning materials effectively into the present school system. They used two different terms for the evaluation of the project; "intrinsic goals" which were directly related to the learning/instruction process aimed to enhance student achievement level, and "payoff goals" which were more concerned about economic efficiency of the project including supportive fuctions as a whole system, e.g., teaching skill and school management.(Masoner et al., Ibid: 158) Most of the project reports, therefore, deal with efficiencies of specific learning material, sequential organization of a learning task, and different teaching methods in terms of achievement level compared between experimental and control groups.

The final report of the project states the following about its positive influences on school education(KEDI's 10: 92-105);

Achievement Aspect:

(1) Experimental group showed constantly more than 10 points in their achievement than in the control group,

(2)The proportion of mastery learned student(80 points or more in each subject) was higher in the experimental group than in the control group(2-3 times),

(3) Contributed to enhance higher mental abilities, e.g., problem solving, critical thinking, and creativity,

(4) Contributed to reduce gaps between individuals, regions, classes and subjects.

Affective Aspect:

(1) Contributed to enhance self-learning attitude in students,

(2) Contributed to enhance students' presentation ability,

(3) Contributed to establish students' positive self-concept,

(4) Contributed to enhance students' interest in learning and spirit of cooperation.

School Management Aspect:

(1) Resulting rational school management with "management by objective,"

(2) Enriching school curriculum management,

(3) Expanding teachers' participation in school management,

(4) Reducing teachers' time and task in preparing instruction,

(5) Upgrading teachers' quality in instruction.

It is a widely recognized fact that most R & D types of research are to be found effective within the scope of design.

The project was not extended to middle school level despite its initial planning. There may have been a number of reasons for this. The most convincing ones would be that firstly, it was impossible to find funding sources for the learning materials as was the case in primary schools, and secondly, as KEDI admitted(KEDI's 10: 106), there was the Mastery Learning

Materials already being widely diffused in the middle schools, which was developed by KIRBS and was not much different from the E-M materials.

The reason the E-M Project continued for three years longer than planned was to find ways of disseminating the materials throughout the nation. The cost for this was estimated as approximately twelve million dollars(U.S.) per year. On one hand there was strong demand for the E-M materials from schools and parents, on the other hand there was MOE who could not permit parents to pay for the materials because of the compulsory education policy.

Even though the E-M Project was evaluated as effective for the innovation of Korean education by not only KEDI but also outside evaluation teams, i.e., Masoner's Team and the National Commission for the Evaluation of E-M Project[62], it is hard to deny that the project was limited to the methodological aspect of education.

Issues of Curriculum Development in KEDI

The ex-president of KEDI, Yung Dug Lee, said that "Curriculum decision is essentially a political decision." (Kim, 1983: 243) The word, whether he borrowed the idea from someone else or not, tells succinctly the nature of the curriculum work of KEDI, as it emerged from his long experiences with KEDI.

The above two sections explain a substantial portion of the nature of curriculum work of KEDI. The Fourth Curriculum developed by KEDI was enacted in December 1981. MOE officially entrusted KEDI with curriculum development(K-12) on 13th of October 1980, and asked to have the developed curriculum submitted by July 31st next year. (KEDI's 10: 133)

KEDI had the idea from the beginning to act as a "Curriculum Development Center,"(CDC) as appeared evident by the recommendation of the Comprehensive Long-Range Educational Plan Commission, by taking over the task of curiculum development and textbook compilation which had been carried out by the Compilation Bureau of MOE. As long as MOE holds the control of curriculum development and textbook compilation by a horde

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[62]MOE commissioned a national evaluation team for the project in 1978, and the result was found to be positive.

of experienced experts and by the support of legal protection, KEDI 's idea has been simply a dream. Actually the editorial officers of different subject areas in the Compilation Bureau of MOE, who had to cooperate with the curriculum related works of KEDI during the time, viewed the development of KEDI as a threat to their existence. Because of this cooperation between MOE and KEDI at the working level has been difficult. But a critical moment came in February 1977 when all the editorial officers in the Bureau, about thirty of them, except for one who had been transfered a couple of weeks before the event, were fired on charges of bribery from the textbook publishing companies, and the Bureau itself was dismissed.

For the part of MOE it was very difficult to recruit so many experienced editorial officers at once[63], and also there was a task to solve the decades old inner problem of being exposed to social criticism. For KEDI it was the proper time to voice again the CDC idea. Everything went smoothly except for a delay due to political and legal procedures involved in the relegation of the task. Meanwhile, KEDI undertook with MOE's permission, preliminary research for the development of the Fourth Period Curriculum as mentioned earlier. Yet, the tasks of establishing policy, the initial plan and the final approval of curriculum development and textbook compilation belonged to MOE (KEDI 's 10: 115-116). But this policy change made possible the close cooperation between the officials of MOE and the KEDI researchers not only in the curriculum business but also in other works.

The basic philosophy and principles of KEDI 's curriculum and textbook development were the same as those of the E-M Project. Actually, the contribution of the E-M Project can be found in that the main ideas and the researchers' experiences of the project were reflected in the curriculum and textbook development at the national level.

They openly advocated the basic principle of curriculum and textbook development of KEDI based on a "Research and Development Model"(KEDI 's 10: 152-153); problem

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[63]They used to be scouted from among those who had twenty or so years of teaching experience and were known as experts in each subject area, and trained a number of years in the Bureau. Because of this their pride as the authority of each subject area was formidable. And their average age used to be high, at that time at least, about fifty years of age.

identification (basic research), development, tryout, revision and application. Thus strong emphasis, as was in the E-M Project, was given to the methodological procedures of how to best organize and present the learning task in terms of a hierarchical order of the task. The hierarchical analysis of a learning task was usually aimed not for questioning or establishing curriculum objectives and contents but for the hierarchical subsystem of given materials or subject content. Therefore, they have little trouble with philosophical conflicts, i.e., in the Korean context, the possible conflicts between the traditional values, the Japanese way of thinking and the Western value system.

The other intriguing issue is the people involved in curriculum and textbook development. What Yung Dug Lee said of "political decision" can be interpreted in this context. There are a number of levels where curriculum decisions are made. The highest policy decision is made by MOE. In the process of getting consultations, MOE officials can exert their power of control. They can select the scholars whose idea or attitude are in accordance with their own, and exclude those who are likely to raise question against their idea. The same is true with the lower level of decision making. In the actual work of curriculum and textbook development, the project leaders of KEDI (and the related MOE officials, in an indirect way) have the power of organizing consulting bodies, in whatever forms they desire. The project leaders of KEDI have to listen to their seniors like the Director or the President just as the MOE officials have to listen to their seniors like the Director or the Minister and to the opinions of the Blue House[4]. There also was involved a matter of interpretation or linkage of what have been input by a different group of consulting bodies. There are not many who are involved in the whole procedure from the curriculum decision making at the top to textbook writing. Because of this there is a problem of discrepancy among the General and the Particular of curriculum, the curriculum and the textbooks.

Members of consulting bodies at the lower level of curriculum decision and textbook writers are, in general, ready to accept the basic model or scheme of work suggested by KEDI.

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[4]Which is the same as the White House in the U.S.

Not only because that is the perceived way of adjusting to life situations but also because there are not many who have majored in both subject area and educational theory. Even though they are experts in their subject areas, they tend to listen to KEDI researchers for the work procedures of analyzing, organizing, developing and evaluating the subject contents.

Other limits imposed on the KEDI work are the time lines set for each task, which are mechanical and usually very tight. Regardless of the quality of work, they have to finish a given task within a given time limit. They have a belief that output is dependent on input. The most creative works of KEDI thus are managed and controlled by a factory management model, e.g., MBO, PERT or Ghant Chart. In fact, R & D philosophy has become the mechanization of manpower processes. Thus education in a sense became a dehumanized process of mechanization. One example is the idea embedded in the Mastery Learning Model: the amount of learning is dependent on time spent in the learning. The theory itself may not be said to be wrong, but the problem is to apply the theory to every aspect of education, quantifying even quality aspects of education.

IV. Ways of Understanding Technology and Development

Among the three nations in the Orient, Japan opened its door first to the Western technological world. Korea followed a few decades later. And China recently shows signs of riding the same, if not entirely the same, bandwagon. While we in the Orient march towards the path of a technological world, one which was opened and trodden upon by the Western world, we need to reflect at least on two questions; "Is it the right path?" and if so "Is it possible to catch up with the so-called developed forerunners?" The second question may be put in different ways. The essential question is the first one. The first question may be related to "what" or "why," the second "how." Thus, the questions are about "end" and "means." But if we are to answer 'no' to the first question, then the second would be irrelevant. But it is still necessary to ask the second question since we have already launched ourselves along this path.

A. Western Notion of Technology

Technology is so vast, complicated and controversial that understanding the problem itself becomes problematic. There is virtually no end to the discussion about technology. Literature on the issues of technological views, pleas, assertions, and justifications are so abundant that clarity is a problem.

The main reason for the complexity lies in the fact that technology has influenced almost all aspects of society and, thus has become defined broadly as "a system whose social, cultural, intellectual, managerial, and political components are seen as integral to it." (Graubard, *Daedalus*, 1980, Winter:v) This view accepts the idea that we have gone beyond the age of the machine, and that technology had become so all encompassing that it is impossible for an expert or a specific group of people to deal with it. To review and sort out the critical issues and problems of modern technology seems to be an inexhaustible task. Yet, in order to get a critical understanding of technology, we need to review some of the concerns or arguments offered.

Graubard, in a discussion for *Daedalus*, raised some of the main concerns:

> Technology dominates the news today and figures in our thinking in ways that would have seemed almost inconceivable just a few decades ago.... The industrial expectations of yesterday suddenly seemed naive, almost innocent; we wonder whether we have been too sanguine for too long. Have we been insufficiently attentive to the **real** problems of development in the modern industrial world? But, what, indeed, are these problems? Are they social, political, economic, perceptual? Ought we to be largely preoccupied with productivity, with technological innovation and invention? Is this a problem for all industrial societies, for some, for a few? Why has it become so paramount an issue in the U.S. at this time? If we are to anticipate the issues of the 1980s, ought our chief concern to be with the hazards of technology, with the element of "risk" that are increasingly coming to the fore in all public discussion of major industrial options and alternatives?... Is too much of our reflection about technology too machine-oriented? Are we in fact asking questions about specific techniques when we ought to be asking more general questions about the nature of modern culture? Yet, how is it possible to do that without emphasizing the immense complexity and variety of that culture? Do we know how to treat such issues? Why do they figure so rarely on the public agenda of those who concern themselves with technology in the modern world? (Ibid:3)

The above presents a sense of the complexity of the issue. Some have concerns about technology itself, in a narrower sense, emphasizing mechanical and entrepreneurial aspects. Others have concerns with philosophical attachments: its nature in terms of historical and philosophical bases, and its epistemological roots. Some pay more attention to the technological impacts on social, political, cultural and ecological phenomena. Others focus their attention on the problem of how to control technology and seek alternative ways of dealing with it, anticipating future development. These concerns, however, are not independent but are interrelated. There are virtually no areas of human life left totally free from technology.

Because technology has penetrated so deeply into every nook and cranny of human life, the problem of technology becomes an intricate and enormous conundrum. Thus, technology has become a core problem for all areas and disciplines; e.g., economics, politics, sociology, philosophy, education, anthropology, sciences and arts. In this modern era of science and technology, technological rationality has become so predominant that all these areas can no longer exist without it. The problem thus becomes how we should question or understand technology. If we are going to approach the problem of technology within each area or from one vantage point, it could be nothing more than a blind man's touch of a part of an elephant. 'Understanding' can be partially correct within itself but not necessarily true as a whole. This is

why we need to expand and deepen our vision for the problem.

The Western understanding of technology seems to have become the criterion for the whole world. If we are to extend our view of technology it will be necessary to review the roots of technology -- how technology came to be understood as it is now within Western tradition. Before doing that it would be helpful to review the general understanding of technology.

There are three groups of people according to their positions, those pro and con (or utopian and dystopian, or "Boosters" and "Obstructionists,") and those who do not belong to either. In the utopian perspective, technology is viewed as an "angel of light," that is, as the only reliable guide to tomorrow's world, a panacea for virtually all our social ills. On the other hand, in the dystopian perspective, technology is branded a "demon," the sinister fruit of a Western compulsion to rationalize and control -- a conquering tyrant that enslaves all who touch it, carrying them off captive in an updated version of some ancient triumphal procession. (Schuurman, 1980)

The third group of people may be called either socialist-revolutionalists or transcendentalists. They are interested in finding ways of compromising or overcoming the limits of the two extreme views.

The Utopian View of Technology

This view of technology, geared to science, has dominated the Western hemisphere for the last three to four centuries and has spread in this century throughout the world. Underlying this view is the belief that technology has served as the engine of the most advanced, the most developed civilizations of human history, leading human beings to the utopian society, wherein the side effects or social ills are resolved. As Gendron stated, "...technological growth, if left unimpeded by any major disaster, will in the long run bring about the demise of every major social evil." (1977: 3) They turn their eyes from negative aspects of technological development, and see only the positive aspects. Moreover, the negative aspects are viewed as a necessary imbalance or momentum for achieving higher levels of development, or the price you have to

pay for progress towards a better and ideal state of human living.

Some compare the modern affluent society with all its convenient technological appliances to the previous era where such development was inconceivable. While some of these technocratic vanguards advocate, with their sophisticated knowledge, the bright future which technology will bring about, the majority of average persons are seen to have a simple logic or a naive concept of technology. The latter view technology as a tool or machine, extending human capabilities, and saving human labor (particularly drudgeries), and, therefore, giving increasing benefits. The more technology develops, the more benefits will ensue; e.g., robots or computers.

Hence, they believe, they can achieve a vast scale economic success with little human effort. In the same fashion, they believe, the economic problems which cause major social problems can be solved throughout the whole world. Medicine, as a consequence of technological development, is believed to have conquered the major diseases of humanity, and to have contributed to the extension of the average life span. Whatever kind of new diseases may appear, technologically advanced medicine can solve them as in the past. Like economic problems, other resource depletion, be it food, energy or mineral, can be solved by developing substitutes in a more economic and convenient fashion.

There are a variety of imaginations for a bright picture of the future; we can build "cities that float on water, underground habitats that adapt to the earth's available space, and solar powered metropolis spheres that are suspended in the atmosphere." (Fuller, in Thomas, 1985:112) Most science fiction literature heralds the future wherein man acts almost like a god. They believe there is virtually no end to human ingenuity, and humans, therefore, can do anything they want and need to do.

Following this line of thinking, the utopians even insist that human consciousness can be adjusted to the spirit of technology. This is the "irresistible need to explore," in order to activate the realization of the new world which technology will bring about. Human perspectives, values, contexts, behaviors and relationships are subject to change by the way in

which technology dictates to us. Our mission, therefore, is to help change this consciousness "by applying the 'method' of science to all humanity and through human imaginative values which science has evolved." (Bronowski, in Thomas, Ibid: 115)

Thus human or social engineering becomes common practice. Even freedom should be designed and shaped, according to Skinner, to the technological will that is technocratic; "The ideal of the free and self-governing (autonomous) personality is a traditional part of our thinking in law and political philosophy. For Professor Skinner this idea is not only an illusion, but also a pernicious relic of the past that stands as a barrier to our future progress. A thoroughly scientific program for the advancement of mankind demands that we scrap it. So he does come on as something of a social crusader after all."(Barrett, 1979:xiii)

Theodore Roszak criticizes that there is freedom only for scientists; "The scientists and technicians enjoy the freedom -indeed they demand the freedom- to do **absolutely anything** to which curiosity or a research contract draws them." (1969:274) Furthermore, Bronowski heralds a freedom for people that was opened by the scientific spirit; "...men have asked for freedom, justice, and respect precisely as the scientific spirit has spread among them." (in Roszak, Ibid: 300)

Thus the utopian perspective of technology is not only optimistic at every turn, but also warns us that we should attentively follow the way technology shows in order to solve our social problems. Otherwise we will be 'cast-offs' on this planet. This implies that all social ills are the results of man's incapability of following or adjusting to technological progress. "Progress means expansion of everything that is good and the reduction of everything that is not; social evils are negated by technological advance and a collective consciousness that ensure a future world characterized by limitless potential." (Thomas, Ibid:123) All that is of concern is finding the right technique in every aspect of human life.

The Dystopian View of Technology

This view is quite the opposite to the utopian perspective. "Instead of promoting advancement and eliminating social evils, dystopians believe that technology intensifies social and economic problems. Technology undermines freedom and democracy; it encourages manipulation of the masses; it makes work tedious, commonplace and detached from humanity." (Thomas, 127) Thus all the social ills are due to technology, if not directly, then eventually or essentially; incessant wars on a massive or small scale, great discrepancy between the 'haves' and 'have-nots,' starvation, resource depletion, pollutions and ecocide, nuclear threats, alienation, exploitation, social crimes, new diseases, moral decay -- all these are the symptoms of a technological era which threaten human life on a global and devastating scale, and with ever increasing speed. Doomsday is not a matter of the future; it is already here with us right now, in every social aspect. There is no hope for human beings if some miracle does not happen.

Dystopians color a gloomy picture of modern civilization. Technique turns means into end and makes efficiency the central concern of all technocrats who have the know-how to reduce quality to quantity. And by this means, technology has taken over the whole of civilization. There is no choice left for human beings because whatever choices we have are doomed to fall within the technological framework;

> Man is still perfectly capable of choosing, deciding, altering, directing... but always within the technological framework and toward the progresion of technology...: Man can choose, but in a system of options established by the technological process. He can direct, in terms of the technological given. He can never get out of it at any time, and the intellectual systems he constructs are ultimately expressions or justifications of technology. (Ellul, in Thomas, ibid:129)

Technology which opened modern civilization and was intended to free human beings from all menaces, thus has dominated and enslaved its creators themselves: "...the technological veil conceals the reproduction of inequality and enslavement. With technical progress as its instruments, unfreedom --in the sense of man's subjection to his productive apparatus-- is perpetuated and intensified in the form of many liberties and comforts." (Marcuse, 1964:32, in Thomas, ibid:130)

For the dystopians, there is little hope that we can reverse the direction of the 'one-dimensional society,' for "the totalitarian tendencies of the one-dimensional society render the traditional ways and means of protest ineffective -- perhaps even dangerous because they preserve the illusion of popular sovereignty." (Marcuse, 1964:256, in Thomas, ibid:130) The fruit of technology, like a second Adam's Apple, has already been plucked and swallowed.

Technology has now become an automaton, running by itself as a system. According to Ellul the technological system is not a metaphor, but it is real:

> His point is not that society has become a machine, but rather that it has become dominated by a group of technologies that function as a separate system. The technological phenomena that characterize this system have a number of common characteristics. They are autonomous; that is, they depend only on themselves, and are also self-augmenting, since they tend to respond only to inner directions and limitations. Furthermore, this system is unified: various technologies interact in intimate ways with one another.... [Thus] the system tends to "totalize" society: as it affects the various aspects of human life it tends to restructure them according to its own rules. It is not so much that man is subordinated by technology, but that it tends to reconstitute his reality. (in Rybczynski, 1983:21-22)

Man lost the reins to control technology. It runs now in madness. "Above all, the capacity of our emerging technocratic paradise to denature the imagination by appropriating to itself the whole meaning of Reason, Reality, Progress, and Knowledge will render it impossible for men to give any name to their bothersomely unfulfilled potentialities but that of madness."(Roszak, 1969:xiii) This madness can be seen everywhere, particularly in the arms race; "The question is no longer: 'Will mankind be able to modify the weather on a large scale and control the climate?' Rather, the question is: 'Which scientists will do it first, American or Russian?'" (Commander W.J. Kotsch, in Roszak, ibid:281) Thus the technocratic imperative became "What can be done must be done." That technology has no redeeming capacity is the view of most pessimists.

As critiques against technology become harsher, some scientists try to keep an indifferent pose; "Of course, almost any kind of research, however academic, and almost any invention, however beneficial to mankind, from the knife to atomic energy, from anaesthetics to plant hormones, can be used for war and other destructive purposes, but it is, of course, not the scientist and inventor who carries the responsibility for how the results of his research or

his inventions are used." (The Observer, June 1968, in Roszak, ibid:287)

Alternative Views of Technology

In fact, most dystopians, except a few extremists who prophesy eschatology, criticize technology in order to advert ways of overcoming its limits of two extreme views. The alternative viewers in general admit the benefits of technology and at the same time try to see its danger as well. Therefore, according to the degree that they accept technology they are closer either to utopian or to dystopian. But the ideas or the aspects they emphasize are different.

One group holding an alternative view, the Socialists, attack dominant social classes as the leading minority. They do not see technology itself as evil. Technology may serve to eliminate scarcity and help to liberate humanity. But the bad effects of technology come from the minority, the capitalist class, who control and use technology for their own interests and not for the masses. They strongly rely on technocrats or scientists. But in the capitalist society these technicians are believed to be owned by a small group of capitalists. Thus they think the problem resolution lies in the class struggle, which leads to the masses' revolution, and their principal weapon is social engineering. In this sense they share, or even exceed, the utopian perspective. In terms of strict control of technology, they might have succeeded to achieve their goal but only at the cost of creation of a new dominating class which was their original target of struggle, and at the cost of unimaginable number of human lives and suppression of human freedom. We see all the uncanny examples of such ironies in most socialist countries of this century.

Another group of the alternative perspective advocates so-called "appropriate" or "intermediate" technology. They think technology is essentially a human product, so its control or adaptation depends on human hands. By "appropriateness" they refer to the "scale" or "kinds" or "speed" of technology which would better fit the situation of individual society and culture. For example, "small-scale" technology would be more desirable to a country where an industrial scale or other conditions do not permit "large-scale" technology. Witold Rybczynski,

in Taming the Tiger (1983), reviews examples of how different societies and individuals have tried in different ways to resist or adjust to technological development. These examples, he argues, can "serve to remind us that the machine is a human creation, and that inventing and using technology is a human activity --not an inanimate force-- which has the same capacity for error as other human activities."(p. 32) So he views the choice of technology as "the choice of a particular set of values, and thus the debate about nuclear energy, or small-scale industry, or chemical agriculture, is really a debate about human values masquerading as a discussion of technical options."(p.11) He seems to take the position that technology itself is not wrong; it "makes no demands and hold out no promises, it is the human spirit that makes demands and keeps promises." (Mumford, in ibid:16) Therefore, the problem of controlling technology should be found not in technology but in the human being himself. Rybczynski argues;

> Whether we control technology by directing its evolution, by choosing when and how to use it, or by deciding what significance it should have in our lives, we shall succeed only if we are able to accept what at first appears to be an impossible shift in our point of view: different as people and machines are, they exist not in two different worlds, but at two ends of the same continuum. Just as we have discovered that we are a part of the natural environment, and not just surrounded by it, so also we will find that we are an intimate part of the environment of technology. The auxiliary "organs" that extend our sight, our hearing, and our thinking really are an extention of our physical bodies. When we are able to accept this, we shall discover that the struggle to control technology has all along been a struggle to control ourselves. (Ibid:227)

While dystopians view that technology is out of human control, these alternative viewers assert that it is still in the hand of human control. Some illustrate how the market system, that is the people's choice, has affected selectively on the development of new technological items.

Related to the human factors in relation to technology, there are a group of people who are not merely trying to find ways of controlling technology but are trying to understand technology within the context of the human image itself. They emphasize that we need to clarify and determine our being in relation to nature. So the main concern is more in humanity and its history and culture than in technology itself. Technology came into being, they view, by the conception that man is the being "over" nature which, in turn, lies there to be used and exploited by man. Therefore, man's relationship with nature, with the rest of mankind, and

with ourselves is determined accordingly. Thus the issue of controlling technology becomes not "that of man versus machine, but the conflict of man versus man." (Rybczynski, 1983:72)

Human values and morality come to the fore. Will to power and greediness are culprits. "We are uncertain of who we are or where we are going. There is a threat to our identity so we are anxious."(Anderton, in de Bono, 1971) Robert Byrnes(in Shane, 1981) points out that "everyone must question, in historical perspective, their present personal values in order to sort out which of our established values should be and need to be preserved." Schuurman asks "What does technical development have in store for humanity and culture?" and says that "Freedom and power exist in an eternally unbridgeable dichotomy.... Only when freedom and power are brought into harmony --and this is only possible through an acknowledgement that created reality, including humanity, is not self-sufficient--, does a meaningful, liberating perspective for technological development open up." (1980)

Roots of Western Technology

Technology, as discussed earlier, can hardly be dealt with separately from such related issues as politics, economics, history of culture, philosophy, sociology, science and education. The same is true with "development." But the main concern in this study is to view Western technology and development with an interest in understanding the Oriental, specifically Korean, situation better in the milieu of a broader world context. Emphasis, therefore, will be given to those aspects which seem to best serve this concern.

Cultural and Philosophical Root

The roots of Western technology can be traced back to the Greeks, as can the civilization itself. But the most salient watershed, in terms of the Western development of science and technology, appeared in the sixteenth and seventeenth century. In terms of events, the Reformation, the Enlightenment and the Industrial Revolution can be called the "ignition," "warming-up" and "take-off," respectively, for the development of technology. In terms of persona, scholars agree that the source is in Rene Descartes. Russell Means argues;

> Newton, for example, "revolutionalized" physics and the so-called natural sciences by reducing the physical universe to a linear mathematical equation. Descartes did the same thing with culture, and John Locke did it with politics, and Adam Smith did it with economics. Each of these "thinkers" took a piece of the spirituality of human existence and converted it into a code, an abstraction.... Each of these intellectual revolutions served to abstract the European mentality even further, to remove the wonderful complexity and spirituality from the universe and replace it with a logical sequence: one, two, three, Answer! This is what has come to be termed "efficiency" in the European mind. (*Mother Johnes*, Dec. 1980)

I think the most important impetus of Western civilization, which finds no counterpart in the Orient, is the segregation of mind and body -- with putting the former at the top of everything else, crowning with "reason." This is often said to have started from Descartes' famous dictum; "I think, therefore, I am." But the seed, they say, was planted by the Greeks;

> Heraclitus taught that all changes in the world arise from the dynamic and cyclic interplay of opposites and he saw any pair of opposites as a unity. This unity, which contains and transcends all opposing forces, he called the Logos.
>
> The split of this unity began with the Eleatic school, which assumed a Divine Principle standing above all gods and men. This principle was first identified with the unity of the universe, but was later seen as an intelligent and personal God who stands above the world and directs it. Thus began a trend of thought which led, ultimately, to the separation of spirit and matter and to a dualism which became characteristic of Western philosophy....
>
> The Greek atomists drew a clear line between spirit and matter, picturing matter as being made of several 'basic building blocks.' These were purely passive and intrinsically dead particles moving in the void. The cause of their motion was not explained, but was often associated with external forces which were assumed to be of spiritual origin and fundamentally different from matter. In subsequent centuries, this image became an essential element of Western thought, of the dualism between mind and matter, between body and soul. (Capra, 1975:20-21)

This dualism, whether we like it or not, led to further fragmentation of almost every aspect of human life in the West, starting with the segregation of man and nature. Related to this, we need to pay attention to the underlying forces or factors which made possible technology as it is now, and enabled Western civilization to have dominated, and to have become the standard of modern civilization throughout the world. Throughout history, man has sought to be freed from the shackles of natural forces. Once man became independent -that is separated- from nature, nature was seen as an inanimate object to be utilized, exploited and conquered by man. In the process of the evolution of the Western way of thinking, we can find its basic reliance on "power" or "will to power," which is again supported and enlarged by material wealth and

efficiency. These power sources are activated by means of science, technology, positivistic reasoning, competitive spirit, etc. All these factors are interrelated.

Therefore, we can explain technological development in relation to any of the above factors. What the Orientals call Western civilization, the "material civilization," is one example. But the basic impetus of all can be found in the notion of "power" which became to mean physical or external power. This power concept is particularly relevant when we deal with the problem of technology, because technology is often defined as the "application of power machinery to production," or the "sum total of means" to production. This initial concept of power which was intended to be exercised in the struggle against nature, however, later became eroded and changed to the extent that the power became the justice.

Even human beings have come to be considered as a resource or object to be managed, utilized and exploited as natural resources; thus became "manpower." Beings are reduced to a sort of, in Heidegger's term, "standing reserve" or stockpile in service to, and on call for, technological purposes. Primitive physical power was extended by using tools, and later high technology, to the extent that whatever conducive to enhance this power became the "right" resources and "right" path to follow. Economy is the primary source of the power. Intelligence and knowledge became the potential power source. Education which produces high intelligence and scientific knowledge became the secondary power source. Whatever has been proved to be "superior" and worked out for that purpose became the right criterion. In this way almost all aspects of human life became subjugated to the single premise -- becoming a "one-dimensional society." Most human affairs can be explained in relation to the power concept, its struggle and structure, which most intellectuals admit but tend to eschew to mention. Struggling for survival, as the archetypal justification, is taken for granted. Thomas(Ibid:149) writes, "The technological society is not interested in moral standards or integrity; survival wins over dignity; 'efficient,' 'better,' and 'best' are passwords."

Technology as a means for the extension of human power, and for human purpose, became, many say, the end itself. Some say it is now out of human control, and they fear what

it may cause to human life, which they can hardly anticipate. "The same technologies that have extended man's control over the world are themselves difficult to control." (Winner, 1977:28-29, in Thomas, ibid:146) The power created by man is now threatening to attack himself like a returning "boomerang." Hope is still there that we can catch it, but there is danger as well.

Technology is said to have developed through distinctive stages; tool stage, machine stage and automaton stage. The breakthrough was made at the last stage. But the seed was sown far earlier. The root may lie in the segregation of mind and body, man and world, and man and man.

Etymological and Epistemological Roots

The etymological root of technology is discussed in Heidegger, with profound and complex density, in his essay on "The Question Concerning Technology" (in Basic Writings, 1977, -- herein cited as QT). According to Heidegger, the word technology stems from the Greek:

> *Technikon* means that which belongs to *techne*. We must observe two things with respect to the meaning of this word. One is that *techne* is the name not only for the activities and skills of the craftsman, but also for the arts of the mind and the fine arts. *Techne* belongs to bringing-forth, to *poiesis*; it is something poetic. The other thing is that... the word *techne* is linked with the word *episteme*. Both words are terms for knowing in the widest sense. They mean to be entirely at home in something, to understand and be expert in it. Such knowing provides an opening up. As an opening up it is a revealing. (QT:294-295)

To Heidegger, technology is understood both as means to an end and as human activity, which can be called the instrumental and anthropological definitions of technology. He sees these two definitions of technology as belonging together and the instrumental aspect is crucial; "Instrumentality is considered to be the fundamental characteristic of technology. If we inquire step by step into what technology, represented as means, actually is, then we shall arrive at revealing." (QT:294)

He defines *poiesis*, as "whatever passes beyond the nonpresent and goes forward into presencing, [that is a] bringing-forth."(QT:293) This "bringing-forth" brings something concealed into unconcealment -- it is a form of revealing. Technology thus, in its earlier form

as *techne*, is a "bringing-forth," *poiesis*, that is grounded in revealing, that also is a way of knowing. He contrasts the earlier technology with modern technology which is

> something incomparably different from all earlier technologies because it is based on modern physics as an exact science.... The decisive question still remains: of what essence is modern technology that it thinks of putting exact science to use?... It[modern technology] too is a revealing.... And yet, the revealing that holds sway throughout modern technology does not unfold into a bringing-forth in the sense of *poiesis*. The revealing that rules in modern technology is a challenging, which puts to nature the unreasonable demand that it supply energy which can be extracted and stored as such. (QT:295-296)

Thus the revealing of modern technology has different forms;

> The revealing that rules throughout modern technology has the character of a setting-upon, in the sense of a challenging-forth. Such challenging happens in that the energy concealed in nature is unlocked, what is unlocked is transformed, what is transformed is stored up, what is stored up is, in turn, distributed, and what is distributed is switched about ever anew. Unlocking, transforming, storing, distribution, and switching about are ways of revealing. (QT:297-298)

This revealing that challenges, "reveals to itself its own manifoldly interlocking paths, through regulating their course," for which everything is waiting to be on call for a further "ordering." Whatever is ordered in this way has its own standing, which Heidegger refers to as the "standing-reserve." But this standing-reserve can be ourselves bound by technological mastery just as it can be the coal that is ready for use as fuel -- we are available in the stockpile for technological purposes just like the unearthed gifts of nature. The fact that "...the words 'setting-upon,' 'ordering,' 'standing-reserve,' obtrude and accumulate in a dry, monotonous, and therefore oppressive way, has its basis" (QT:299) in the essence of modern technology, which is "enframing."

> Enframing means the gathering together of that setting-upon that sets upon man, i.e., challenges him forth, to reveal the real, in the mode of ordering, as standing-reserve. Enframing means that way of revealing that holds sway in the essence of modern technology and that is itself nothing technological.... In enframing that unconcealment comes to pass in conformity with which the work of modern technology reveals the real as standing-reserve.... It remains true that man in the technological age is, in a particularly striking way, challenged forth into revealing.... The essence of modern technology shows itself in what we call enframing.... What enframing itself actually is? It is nothing technological, nothing on the order of a machine. It is the way in which the real reveals itself as standing-reserve. (QT:302-395)

Thus he attributes the danger of modern technology to the "enframing" as the essence of modern technology. Even though modern physical science chronologically proceeded to

modern technology, e.g., machine-power technology, he argues, in the sense of the "essence," the reverse is true.

> Enframing, as a challenging-forth into ordering, sends into a way of revealing. Enframing is an ordering of destining, as is every way of revealing. Bringing-forth, *poiesis*, is also a destining in this sense.... Always the destining of revealing holds complete sway over men.... Enframing belongs within the destining of revealing.... Its holding sway belongs within destining.... The destining of revealing is in itself not just any danger, but the danger. When destining reigns in the mode of enframing, it is the supreme danger. This danger attests itself to us in two ways. [Firstly] As soon as what is unconcealed no longer concerns man even as object, but exclusively as standing-reserve, and man in the midst of objectlessness is nothing but the orderer of the standing-reserve, then he comes to the very brink of a precipitous fall, that is, he comes to the point where he himself will have to be taken as standing-reserve.... It seems as though man everywhere and always encounters only himself. But the truth is, as Heisenberg pointed out, that nowhere does man today any longer encounter himself, i.e., his essence.... [Secondly] Enframing does not simply endanger man in his relationship to himself and to everything that is. As a destining, it banishes man into that kind of revealing that is an ordering. Where this ordering holds sway, it drives out every other possibility of revealing. (QT:306-309)

Finally, he seems to suggest art to be the "saving power" to the danger of modern technology. It seems that hope can be found in restoring the essence of modern technology to its original aspect of *techne* which is *poiesis*. The essay is abstruse and as he puts it himself "technology is not demonic: but its essence is mysterious." There seems to be mysterious parts to his essay as well.

Heidegger's reviews of the root word *techne* in terms of "*poiesis*" which is "bringing-forth", and *episteme*, have swiftly converged to the "revealing" as a way of knowing. And this revealing takes a different form in modern technology as a "challenging-forth," which later leads to "enframing." The question of how and why the revealing shift took place (from the earlier form of bringing-forth as *poiesis* to the modern form of revealing that does not unfold into a bringing-forth in the sense of *poiesis*) is not clearly explained except that — "modern technology is based on modern physics as an exact science," and "while we have come to understand more clearly that [technology is based on modern physics] the reverse holds true as well." (QT:295) And he said about the mutual relationship between technology and physics that "it remains a merely historiographical establishing of facts and says nothing about that in which this mutual relationship is grounded."(QT:296) Thus he left, I think, one of the most

important points as something "happened" or "unknown" -- like mystery.

When Heidegger explains the revealing that rules in modern technology as challenging, he uses the illustration that the mere cultivation of soil is not challenging but when "the cultivation of the field has come under the grip of another kind of setting-in-order, which *sets upon* nature," it is a challenging. The windmill is another example. Whatever efforts to utilize nature's force as it is are not challenging, but a transforming or extracting or enlarging of nature's energy comes under the 'challenging.' Using fertilizer, be it traditional or chemical, for example, I believe, would have been a "challenging" to him. Why is the mere cultivation not "setting-upon" nature? I can hardly see the essential difference between the two.

At another point, Heidegger says that man becomes truly free only insofar as he belongs to the realm of destining and so becomes one who listens and hears, and not one who is simply constrained to obey. (QT:306) If there may be a contradiction, it seems to me that he tries to put human beings as destining agents above the technological enframing. It is like competition or contradiction between man's destining and technological destining as the enframing. Therefore, we should master it; "The will to mastery [of technology] becomes all the more urgent [as] the more technology threatens to slip from human control." (QT:289)

The last point is that he seems to pay attention only to what is revealing or revealed rather than what is concealed. Even though "All revealing belongs within a harboring and a concealing. [And] that which frees -the mystery- is concealed and always concealing itself," still ".... Freedom is that which conceals in a way that opens to light, in whose lighting shimmers that veil that hides the essential occurrence of all truth and lets the veil appear as what veils." (QT:306) In his view, the truth appears or is revealed (by man's freedom). Revealing as bringing-forth is important. Even logos, in Greek *legein*, which is to consider carefully, is rooted in *apophainesthai*, to bring forward into appearance. (QT:291)

The Aristotelian four causes are also related to the "bringing-forth." A silver chalice is a product of four causes; material, form and shape, the end which is required to use, and the silversmith who effected for the making. What appears or reveals, that is the positive side of a

thing, is Heidegger's concern. This makes a good contrast to the traditional Oriental thinking which emphasized nature as it is -- or as "suchness" which in a sense is what is concealed as concealment. Truth is truth when it is concealed. Traditional Oriental thinkers did not pay as much attention to what appears as to what is hidden. Even for the chalice, they try to see the importance of the hidden part which is surrounded or hidden by what appeared -- that is the empty space inside of the vessel. So they emphasized the usefulness of uselessness. It is a contrast like positive and negative, foreground and background, usefulness and uselessness, what has appeared and what is concealed.

In any event, Heidegger's essay, as many say, is monumental for an understanding of the essence or root of technology. The danger of modern technology as a mode of enframing seems to be in congruence with the Western root of technology we reviewed just prior to Heidegger. His review of technology, by questioning its root or essence, with such concepts as *poiesis*, bringing-forth, revealing and a way of knowing, is, I think, helpful to the endeavour of overcoming the dangers modern technology presents. His essay in itself seems to be of this endeavour. Particularly his effort to make linkages between technology and art is impressive. As he said, and I agree with it, there seems to be a "saving power" in art. But if there is still mystery left, perhaps it may be better to leave it as it is than to demystify it. May this be a way of art? Heidegger said "the merely correct is not yet the true.... [but] we must seek the true by way of the correct."(QT:289) His own statement may be correct but may not yet be the true.

B. The Notion and Roots of Oriental Technology

My effort here will be directed towards finding an Oriental counterpoise to the Western notion of technology. Technology, in the sense of the Western tradition did not exist in the Orient although they had ideas and talents to develop technology. In fact, history shows that China preceded the West in most technologies up until around the seventeenth century, even though these were premodern types seen from the present (Needham, 1954, 1973, Alvares, 1980). They obviously passed the tool stage and remained somewhere in the machine stage

without having proceeded to the automaton stage in terms of technological development.

If we differentiate between technology and technique, considering the former as an all encompassing system as developed in the modern West and the latter as in a narrower sense of using mechanical contrivance, the Orient should be said to have no technology but to have technique. The simple evidence is that there is not a proper word for technology in the Orient; they translated it into a number of different ways but they do not have the exact, consensual word for it. (This will be reviewed later in this section.)

The reasons why they did not have technology or could not develop it may be found in the Oriental social system and basic philosophy, and the notions of technique which emerged from the former two.

Social System

China succeeded in building a unified nation in about the 3rd century B.C. It developed a very unique type of govermental and social system, a "bureaucratic feudal system" which was neither bureaucratic nor feudalistic. China had "something different from anything that Europe ever knew, and proved to be one of the most stable forms of social order ever developed."(Needham, 1973:2-3) It was based on "scholar-gentry"[65] centered ideology. This select group, the scholar-bureaucrats, were virtually the literate and managerial elite of the nation for two millennia. From the "scholar-gentry" were selected the leading civil servants who were non-hereditary. Selection was by a highly sophisticated imperial examination system[66] which had been continued until the end of 19th century.

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[65]It is debatable to what extent this should be called a "class" because it is clear that in different times and to different degrees it had a great deal of fluidity. Families rose into the "estate," if you like, of the scholar-gentry and sank out of it again; and during those periods when the imperial examinations played an important part in the recruiting of the civil service, families which could not produce the right talents and the particular skills and gifts for success in the examinations and the bureaucracy, were not going to survive more than a generation or two at a high level of society.(Needham, 1973:2)

[66] In 1979 at KEDI, I participated in a research seminar presented by Dr. Kim Jong Bok whose dissertation topic was on the Ancient Chinese Imperial Examination System. He explained how sophisticated this examination system had been two thousand years ago. The participants should first pass the preliminary examination

The basic conception of a non-hereditary elite in a non-competitive society, Needham says, has much in common with the conception of membership of a communal society. Such a conception of government upholds policy which may inhibit the indigenous development of capitalism. Needham explains this:

> The mandarinate system was so successful that it inhibited the rise of the merchants to power in the State; it walled up their guilds in the restricted role of friendly and benefit societies; it nipped capitalist accumulation in the bud; it was always ready to tax mining enterprises out of existence and to crush all mariners' efforts towards sea trade and expansion; and finally, most significantly, it creamed off for two thousand years the best brains from all levels of society into its own service.

The same inhibition resulted in the concept of social "class" or "estate." Among the four distinctive social groups, the merchant came last at all times: ***shih nung kung shang***, the scholars; then the farmers; then the artisans; and finally the lowest "class" of all, the merchants. This order was without change for two millennia. But in the present era, Kuomintang (now the Republic of China), when there still was a chance to win over the communist party, converted its order by putting the last to the top: the merchants, the scholars, the farmers, and the artisans. And the result was, Needham says, the ruin of the Kuomintang China. He continues to explain how this social order was reshaped in communist China;

> The orthodox Communist order was obviously ***kung nung shih shang*** (artisan, farmer, scholar, and merchant), and the Party under Mao Tse-Tung saw at an early stage that this could not work either. The solution was found first in ***nung kung shih shang*** for immediate results, and in the total scrapping of all such distinctions for the long-term programme.

Technology(***kung***[67]) is not yet the first priority in China. The soldiers were also put in the lowest class with the merchants(Needham:9). Thus all the power sources in the

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[66](cont'd) offered on a regional basis throughout the whole nation. For the final test they had to come to the capital city, on the outskirts of which a huge examination court was built with clad brick at some two fathoms high. Inside of the court, which could accommodate thousands of examinees, separated by lower walls. The test lasted for two or three days. During this time, after the only gate was closed, no examinees or examiners were allowed to get out of the court. Everywhere in the country, the examinees were provided by the government with a top priority free transportation, room and board, on their way back and forth to the capital city.

[67]That is Gong in Korean

materialistic and physical sense were strictly controlled under the "scholar-gentry" idealism.

The mentality that operated in this idealism was the concept of "cosmic order", of which the human being is one part. Everything in the world changes according to cosmic circulation, which is based on "growth and extinction", a rule like the movements of the sun and the moon. This change stimulates another change, interactively, to bring a bigger change which is development. Time carries this incessant process of changes governing the universe. Everything in this world, therefore, exists in its changing mode; that is, in between the time, and in its dual form of change; that is, growth and extinction. For example, the moon, as it grows, is pregnant, at the same time is fading, and exists in the moment of a changing process. Bright and dark, big and small, strong and weak, high and low, man and woman, life and death, ... all features in this world have their counter faces, which is captured in the notion of the Yin Yang. The way of understanding the universe in its dual functions is called dialectical universalism. Harmony with this universal order was conceived as having supreme import for human beings.

From such a background Oriental philosophy evolved Confucianism and Taoism which emphasized human relations and humanity and thereof developed high moral ethics. And Buddhism, which was later transmitted to China, found essentially no conflict with these two.

Basic Philosophy

These three philosophies (or religions if you like), good or bad, right or wrong, have provided the basis of Oriental living for about two thousand years. If Confucianism was the basis of their political and social structure, the other two were the bases of people's philosophy of living. Particularly Taoism and Buddhism have, in common, their fundamental view of nature which is "nothingness." Here my review will be concentrated on Taoism which, in one way or the other, has more to say about, or is more relevant to, technology than Buddhism[4].

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[4] In translations of Taoism, I referred to the English versions of Watson, Legge, Yu-Lan Fung, Ch'u Ta-Kao, and the Korean version with the original text in Chinese.

Taoism, and Confucianism as well, can be said to be a product of chaotic political and social situations of the time. Before and during the time of their emergence, China was divided into several countries and was involved in constant internal wars. Naturally, there were ephemeral ups and downs of various nations and individuals as well. (Buddha's momentum was the "agony" of human life.) Through such a chaotic history they might have felt the futility of human life. But it would be more correct to say that through such a history they confirmed or were able to construct a whole ideology of what they already had. Because the Yin Yang or Tai Chi ideologies were developed far earlier than Lao Tzu. The point we need to make is that what great ideas were brought about through the afflictions of history seems to have in common with what Heidegger quoted from Holderlin; "Where danger is, grows the saving power also."

The basic idea of Taoism lies in "wholeness." And this wholeness belongs to "Nothingness," which is the source of everything. In the first chapter of Lao Tzu's Tao Te Ching, we read;

> The Tao that can be expressed is not the true Tao;
> The name that can be named is not the real name.
> Nothingness is the beginning of heaven and earth;
> Isness is the mother of all things.
> From and in Nothingness, therefore, we should
> appreciate the essence of exquisite Tao;
> From and in Isness we should observe the operation of immense Tao.
> These two are the same in source and become different when named;
> Both are called profundity, and are so profound that
> they are the rudiments of ways of all changes.

Even though they believed that "Nothingness" and "Isness" were eventually the same, they put the former prior to the latter once differentiated by name. They view the former as fundamental and the latter as superficial. Therefore they emphasized the negative side or the background of everything. They paid more attention to Nothingness than Isness, the dark side

than the light side, the immaterial than the material, inwardness than outwardness, natural than artificial, no-knowledge than knowledge, death than life, and so on.

It should not simply be viewed that they negated or nullified the positive side. The reason they emphasized the negative side can be interpreted in two ways. As just mentioned, they viewed what did not appear as fundamental; another one may be that, by so doing, they tried to keep balance or harmony in the milieu of a tendency of most people to see the positive side only. Metaphorically, the relationship of the two sides can be viewed as that which appeared on the surface and that which is hidden underneath an iceberg. Chuang Tzu, borrowing Lao Tzu's words in an imaginary conversation about Tao with Confucius, said;

> You must, as by fasting and vigil, clear and purge your mind, perform your ablutions, and sternly repress your knowledge. The Tao is deep and difficult to describe, but I will try to give you an outline of its simplest attributes; The Luminous is brought-forth from the Obscure; the Multiform from the Unembodied; the Spiritual from the Tao; and the bodily from the harmony of pneuma. All things, henceforth, are brought-forth one another from their bodily organization.... The erudites are not necessarily those who truly know; the elocutionists are not necessarily the wise man; thus the sages do concern less on these....
>
> Man's life between heaven and earth is like a white colt's passing a crevice, and suddenly disappearing. As with a plunge and an effort they all come forth; easily and quietly they all enter again. By a transforming they live, and by another transforming they die. Living things are made sad [by death], and mankind grieves for it; but it is like only the removal of the bow from its sheath of nature, and the emptying the natural satchel of its contents.... This is the Great Returning home.... That the bodily frame came from incorporeity, and will return to the same, is what all men in common know, and what those who are on the way to know it need not strive for.... If you try to see clearly the Tao, you cannot meet it, and discussion about it leads not to the understanding of it; --it is better to be silent than to reason about it. The Tao cannot be heard with the ears; --it is better to shut the ears than to try to hear it. This is what is called the Great Attainment which is in harmony with the Great Law of nature. (Chuang Tzu, 22:5)

Harmony with nature is one of the most important themes they constantly sought. Man is considered as one part of it. Thus no separation was made between man and nature, mind and body, and the spiritual and the material. Yet the central pivot they considered to lie in the mind. Everything is in order under nature's law, yet within the limits of corporeal being, all things also depend on the state of mind or spirit. The ideal state is thus when the mind and nature are in harmony. Even the best cure of disease was thought by mind, next by food, and the last by medicine. Wholeness as an integration in and with nature, and as a way of

nourishing and enhancing the state of mind to the level of Tao, were emphasized.

Lao Tzu said, "A man on tiptoe cannot stand firm; A man astride cannot walk on; A man who displays himself cannot shine; A man who approves himself cannot be noted;..." (chap:24) They try to avoid anything unnatural or artificial. External things mattered little to them, rather they thought these to be hindrances to achieving harmony with nature. "Those who endeavour not to seek life are wiser than those who cherish it." (Lao Tzu, chap:75) "Virtue spills over into a concern for fame, and a concern for fame spills over into a love of show. Schemes are laid in time of crisis; knowledge is born from contention; obstinacy comes from sticking to a position; government affairs are arranged for the convenience of the mob." (Chuang Tzu, 26:8) So they eschew the external things.

At one point Chuang Tzu compared the harmonious state of mind to a little child; "The child will cry all the day, without its throat becoming hoarse, because it is in perfect harmony with the way of nature; It will keep its fingers closed all the day, yet without petrifying it, because it is integrated with the virtue of nature; It will keep its eyes fixed all the day, yet without moving or blinkering it, because it is unaffected by what is external to it. It walks where it knows not; it rests where it knows not what to do; it is calmly indifferent to things, and follows their current. This is the square way of guarding the life." (23:1)

So they see no meaningful differences in all things or affairs. Everything is a matter of time because time makes everything equal into the eternal Nothingness, and also everything is dependent on the human mind because it does the same thing as the time. The big and the small, high and low, the beginning and the ending, the noble and the mean, the rich and the poor, day and night, life and death.... in everything there are not much differences. These distinctions, Chuang Tzu said, are like "three in the morning"; "When the monkey trainer was handing out acorns, he said, 'You get three in the morning and four at evening.' This made all the monkeys furious. 'Well, then' he said, 'You get four in the morning and three at evening.' The monkeys were all delighted." (2:3)

There is an often quoted saying in the Orient; "Sai Ong Ji Ma" which means an old man's horse at fortress. These words are based on a story. Once upon a time, there was an old man living near a border fortress. He had only a son. One day he lost his cherished horse, so he was sad. But a few days later the horse came back leading a horde of wild horses. So he became rich and was glad. One day his son who was riding one of the wild horses, dropped and broke his leg. The old man cursed that the horse brought a misfortune to him. A few years later, when his son was grown up, a war broke out. But his son who had lost his one leg was exempted from the military draft. The father was delighted.

Chuang Tzu illustrates a similar story(2:5);

> How do I know that the love of life is not a delusion? How do I know that in disliking death I am not like a man who, having left home in his youth, has forgotten the way back? Lady Li was the daughter of the border guard of Ai, when she was first taken captive and brought to the state of Chin, she wept until her tears drenched to the collar of her robe. But when she came to the palace of the king, shared with him his luxurious couch, and ate his delicious meats, then she regretted that she had wept. How do I know that the dead would not repent of their former craving for life before its death?

Not only the material things but also whatever comes beyond the spiritual (e.g., fame or knowledge,) were viewed as external things. And the best state in relation to the external things is when one knows the insufficient is sufficient. Thus "the rich is the one who knows self-sufficiency or contentment." (Lao Tzu, 23) And they constantly advocate that only small (non-virtuous) men or snobs are craving for material interests. Chuang Tzu warns; "He who looks hard at the outside [external things] gets clumsy on the inside." (19:4) Knowledge is viewed the same as material wealth; it is not only endless but also harmful -- just as pursuing the endless material wealth. (This is the same as that view of knowledge as property and power.) Chuang Tzu said;

> Until Ku Po Yu [in 27:2, the same story is told about Confucius] was in his sixtieth year, he changed his view sixty times. What he had before held to be right, he now ended by holding to be wrong; and he did not know whether the things he now pronounced to be right were not those which he had for fifty nine years held to be wrong. All things have the life (which we know), but we do not see its root; they have their goings forth, but we do not know the door by which they depart. Men all honour that which lies within the sphere of their knowledge, but they do not know the essence of the Great Law of universe which lies beyond the sphere of their knowledge: --may we not call their case a great perplexity? Ah! I myself, who spoke as such, shall not be

escaping from this dilemma and delusion. Even whether this word is true or not, I shall not know. (25:7)

About knowledge, how it fails when pursuing the Tao, Chuang Tzu tells a story using metaphors[69];

Knowledge had rambled northwards to the region of the Profound Water, where he ascended the height of Imperceptible Slope, when it happened that he met with Dumb Inaction. Knowledge addressed him, saying, "I wish to ask you some questions: By what process of thought and anxious consideration do we get to know the Tao? Where should we dwell and what should we do to find our rest in the Tao? From what point should we start and what path should we pursue to make the Tao our own?" He asked three times, but Dumb Inaction gave him no reply. Not only did he not answer, but he did not know how to answer.

Knowledge, disappointed by the fruitlessness of his questions, returned to the south of the Bright Water, and ascended the height of the End of Doubt, where he saw Heedless Blurter, to whom he put the same questions, and who replied, "Ah! I know, and will tell you." But while he was about to speak, he forgot what he wanted to say.

Knowledge, again receiving no answer to his question, returned to the Palace of Kings, where he saw Mind, and put the questions to him. Mind said, "To exercise no thought and no anxious consideration is the first step towards knowing the Tao; to dwell nowhere and do nothing is the first step towards resting in the Tao; to start from nowhere and pursue no path is the first step towards making the Tao your own."

Knowledge then asked Mind, saying, "I and you thus now know this; those two did not know it; which side is right?" The reply was, "Dumb Inaction is truly right; Heedless Blurter has an appearance of being so; you and I are not near being so. (As it is said), Those who know [the Tao] do not speak of it; those who speak of it do not know it; and Hence the sage conveys his instructions without the use of speech." .... [We knew the Tao, yet] Why do you say that we are not near to it? Mind replied, "Dumb Inaction was truly right, because he did not know the thing. Heedless Blurter was nearly right, because he forgot it. I and you are not nearly right, because we know it." Heedless Blurter heard of all this, and considered that Mind knew how to talk. (22:1)

.... Hereupon Great Purity asked Infinitude, saying, "Do you know the Tao?" "I do not know it," was the reply. He then asked Do-nothing, who replied, "I knew it." "If you know it, then are there attributes to the Tao?" "Yes, there are." "What are they?" Do-nothing said, "As noble it is, it can be kings, as mean it is, it can be servitor; when it is bound, it becomes life, when it is dispersed, it becomes death. These are the marks by which I know it." Grand Purity took the words of those two, and asked No-beginning, saying, "Such were their replies; which was right, and which was wrong between Infinitude and Do-nothing's answers?" No-beginning said, "The 'I do not know it' was profound, and the 'I know it' was shallow. The former had reference to its internal nature; the latter to its external conditions." Grand Purity looked up and sighed, saying, "Is 'not to know it' then to know it? And is 'to know it' not to know it? But who would know that he who does not know it (really) knows it?" (22:6)

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[69]All the names here are metaphorical, having more or less to do with the qualities of the Tao. In fact, they used to have such pen names among eremites.

> .... Light asked Space, saying, "Hi! do you exist? or do you not exist?" He got no answer to his question, however, and looked steadfastly to the appearance of the other, which was that of a deep void. All day long he looked to it, but could see nothing; he listened for it, but could hear nothing; he clutched at it, but got hold of nothing. Light then said, "Perfect! Who can attain to this level? I could conceive the state of non-existence, but could not conceive such an absolute state of non-existence where exist even no non-existence. How is it possible to reach to this?" (22:8)

Such stories about knowledge or external things abound. At one point, one disciple asked his master about the Tao four times, and got four times the same answer; "I do not know." Only then could he pop up with delight. (Chuang Tzu, 7:1) Such views of external things naturally nullified the competition for these. They constantly preached "the weak is truly stronger than the strong, and the mightest is the one who wins over himself." (Lao Tzu, 33, 36)

> Man when living is soft and tender; when dead he is hard and tough. All animals and plants when living are tender and fragile; when dead they become withered and dry. Therefore it is said: the hard and tough are parts of death; the soft and tender are parts of life.... The position of the strong and great is low, and the position of the weak and tender is high. (Lao Tzu, 76)

Chuang Tzu compared such competition to meaninglessness -- as "racing with his own shadow" or "constant shouting in order to catch one's own echo." (31:1, 33:7) Thus no-distinction, no-knowledge, no-competition are the ways to make harmony with nature.

Notion of Technology

The Oriental view of technology comes within the framework of their basic philosophies. Orientals tried to avoid using technology as an external thing. They viewed arms as a harmful instrument(Lao Tzu, 31), and even if they had a useful instrument, they thought it better not to use it(Lao Tzu, 36, 80). Chuang Tzu introduces a story of an old man who was working hard with his traditional way of irrigation, yet rejected using a far more efficient technological device by saying that "I have heard my teacher say that, where there are ingenious contrivances, there are sure to be subtle doings; and that, where there are subtle doings, there is sure to be a scheming mind. But, when there is a scheming mind in the breast, its pure simplicity is impaired. When this pure simplicity is impaired, the spirit becomes

unsettled, and the unsettled spirit is not the proper residence of the Tao. It is not that I do not know of such things, but I am ashamed to use them." (12:3)

Not only did they not try to buy the benefit of technology, but rather they adverted the true benefit that had lain in the negative side of it; that is the "usefulness" of the "useless."

Lao Tzu(chap. 11) said;

> Thirty spokes unite in one nave, and because of the part where nothing exists we have the use of a carriage wheel. Clay is moulded into vessels, and because of the space where nothing exists we are able to use them as vessels. Doors and windows are cut out in the walls of a house, and because they are empty spaces, we are able to use them. Therefore, on the one hand we have the benefit of existence, and on the other, we make use of non-existence.

Chuan Tzu tells a story about a useless giant tree;

> Carpenter Shih went to Chi's and, when he got to Crooked Shaft, he saw a serrate oak standing by the village shrine. It was broad enough to shelter several thousand oxen and measured a hundred spans around, towering above the hills. The lowest branches were eighty feet from the ground, and a dozen or so of them could have been made into boats. There were so many sightseers that the place looked like a fair, but the carpenter did not even glance around and went on his way without stopping. His apprentice stood staring for a long time and then ran after Carpenter Shih and said, "Since I first took up my ax and followed you, Master, I have never seen timber as beautiful as this. But you do not even bother to look, and go right on without stopping. Why is that?"
>
> "Forget it -- say no more!" said the carpenter. "It is a worthless tree! Make boats out of it and they would sink; make coffins and they would rot in no time. Use it for doors and it would sweat sap like pine; use it for posts and the worms would eat them up. It is not a timber tree -- there is nothing it can be used for. That is how it got to be that old!"
>
> After Carpenter Shih had returned home, the oak tree appeared to him in a dream and said, "What are you comparing me with? Are you comparing me with those useful trees? The cherry apple, the pear, the orange, the citron, the rest of those fructiferous trees and shrubs -- as soon as their fruit is ripe, they are broken off, their little limbs are yanked around. Their utility makes life miserable for them, and so they do not get to finish out the years Heaven gave them, but are cut off in midjourney. They bring it on themselves -- the pulling and tearing of the common mob. And it is the same way with all other things.
>
> As for me, I have been trying a long time to be of no use, and now that I am about to die, I have finally got it. This is of great use to me. If I had been of some use, would I ever have grown this large? Moreover you and I are both of us things. What is the point of this -- things condemning things? You, a worthless man about to die -- how do you know I am a worthless tree?" (4:4)

Another metaphor about the usefulness of the useless took place in the form of dialogue between Chuang Tzu and his best friend Hui Tzu;

> Hui Tzu said to Chuang Tzu. "Your words are useless!" Chuang Tzu said, "A man has to understand the useless before you can talk to him about the useful. The earth is

certainly vast and broad, though a man uses no more of it than the area he puts his feet on in order to stand. If, however, you were to dig away all the earth from around his feet until rest of the earth sank to endless abyss, then would the man still be able to make use of it?"
"No, it would be useless," said Hui Tzu.
"It is obvious, then," said Chuang Tzu, "that the useless has its use." (26:7)

Chuang Tzu says that knowledge is the same as the area of land where you put your feet on. Not only is the knowledge you have as meager as the small land your feet are on compared to the rest of the earth (which is unknown in terms of knowledge) but also the small portion of your knowledge is meaningful and useful only because there is a vast unknown area. (24:15)

They admired technique or skill insofar as it helps to the achievement of mind's integration with Tao. There are stories about how technique should be integrated with spirit, natural law or the Tao;

Cook Ting was cutting up an ox for Lord Wen-hui. At every touch of his hand, every heave of his shoulder, every move of his feet, every thrust of his knee -- zip! zoop! He slithered the knife along with a zing, and all was in perfect rhythm....
"Ah, this is marvelous!" said Lord Wen-hui. "Imagine skill reaching such heights!"
Cook Ting laid down his knife and replied, "What I care about is the Way, which goes beyond skill. When I first began cutting up oxen, all I could see was the ox itself. After three years I no longer saw the whole ox. And now -- now I go at it by spirit and do not look with my eyes. Perception and understanding have come to a stop and spirit moves where it wants. I go along with the natural makeup, strike in the big hollows, guide the knife through the big openings, and follow things as they are. So I never touch the smallest ligament or tendon, much less a main joint.
A good cook changes his knife once a year - because he cuts. A mediocre cook changes his knife once a month - because he hacks. I have had this knife of mine for nineteen years and I have cut up thousands of oxen with it, and yet the blade is as good as though it had just come from the grindstone. There are spaces between the joints, and the blade of the knife has really no thickness. If you insert what has no thickness into such spaces, then there is plenty of room - more than enough for the blade to play about in. That is why after nineteen years the blade of my knife is still as good as when it first came from the grindstone.
However, whenever I come to a complicated place, I size up the difficulties, tell myself to watch out and be careful, keep my eyes on what I am doing, work very slowly, and move the knife with the greatest subtlety, until - flop! the whole thing comes apart like a clod of earth crumbling to the ground. I stand there holding the knife and look all around me, completely satisfied and reluctant to move on, and then I wipe off the knife and put it away." (3:1)

Duke Hwan, seated above in his hall, was once reading a book, and the wheelwright Phien was making a wheel below it. Laying aside his hammer and chisel, Phien said, "I venture to ask your Grace what words you are reading?" The duke said, "The words of the sages." "Are those sages alive?" Phien continued. "They are dead,"

> was the reply. "Then" said the other, "what you, my Ruler, are reading are only the dregs and sediments of those old men." The duke said, "How should you, a wheelwright, have anything to say about the book which I am reading? If you can explain yourself, very well; if you cannot, you shall die!" The wheelwright said, "I will explain it from my own experience. In cutting a wheel, if I proceed slowly, it is too loose to fit; if I proceed fast, it is too tight to fit. The optimal speed, which is neither slow nor fast, comes from the perfect harmony with my movement of hand and my spirit - there is a subtle knack in it. But it is impossible to explain it by words. So I cannot teach the knack to my son, nor can my son learn it from me. Thus it is that I am in my seventieth year, and am still making wheels in my old age. But these ancients, and what it was not possible for them to convey, are dead and gone: - so then what you, my Ruler, are reading is but their dregs and sediments!" (13:5)

> As Chuang Tzu was accompanying a funeral, when passing by the grave of Hui Tzu, he looked round, and said to his attendants; "There was a man living in Ying who put a little bit of mud on the top of his nose like a fly's wing, and sent for the mason Shih to cut it away. Shih whirled his axe so as to produce a wind, which immediately carried off the mud entirely, leaving the nose uninjured, and the man of Ying standing undisturbed. The ruler Yuan of Sung heard of the feat, called the mason Shih, and said to him, "Try and do the same thing on me." The mason said, "Your servant has been able to trim things in that way, but the man of Ying who would stand still with perfect trust has long been dead." Like the man of Ying, since the death of the Hui Tzu, I have no one with whom to talk. (24:6)

The above episodes imply admiration for technique when it is unified with spirituality - that is what they call god's technique. Of course, they admired the exquisite product of such technique as well. But such product is possible only when the technique has transcended to the spiritual level. So the product is something artistic. Such products are priceless. These are beyond monetary value. Here technique is invariably tied with art. The higher form of craftsmanship, its skills and techniques, have been viewed as the art itself. Not only the craftsmanship but also all other areas, e.g., calligraphy, literature, architecture, archery, swordsmanship, etc., are viewed as art in their higher level.

In the form of art, as it appeared in the above episodes, the central goal is to inure or master one's mind and spirit. Their central concern is directed not toward external things but to oneself. They viewed skills or techniques in whatever areas as limited within human capacity but also impaired by the attention to the external things. And the only way to overcome this limit is by way of overcoming oneself, by total concentration of one's spirit.

Eugen Herrigel, in his Zen and the Art of Archery, says, "... consequently, by the 'art' of archery he does not mean the ability of the sportsman, which can be controlled, more or

less, by bodily exercises, but an ability whose origin is to be sought in spiritual exercises and whose aim consists in hitting a spiritual goal, so that fundamentally the marksman aims at himself...." (1971:4)

Even though the Art of Archery is one example, a few more excerpts from the book would help to understand how they viewed art to come prior to technique and how the latter should be upgraded to the former level.

> For them the contest consists in the archer aiming at himself ... and yet not himself, and thus becoming simultaneously the aimer and the aim, the hitter and the hit.... it is necessary for the archer to become, in spite of himself, an unmoved center. Then comes the supreme and ultimate miracle: art becomes "artless," shooting becomes not-shooting, a shooting without bow and arrow; the teacher becomes a pupil again, the Master a beginner, the end a beginning, and the beginning perfection. (p. 6)

> "The right art," cried the Master, "is purposeless, aimless! The more obstinately you try to learn how to shoot the arrow for the sake of hitting the goal, the less you will succeed in the one and the further the other will recede. What stands in your way is that you have a much too willful will. You think that what you do not do yourself does not happen." (p. 34)

> ...they [Masters] tell the pupil that the right frame of mind for the artist is only reached when the preparing and the creating, the technical and the artistic, the material and the spiritual, the project and the object, flow together without a break. (p. 48)

> The man, the art, the work - it is all one. The art of the inner work, which unlike the outer does not forsake the artist, which he does not "do" and can only "be," springs from depths of which the day knows nothing. (p. 51)

> What is true of archery and swordsmanship also applies to all the other arts. Thus, mastery in ink-painting is only attained when the hand, exercising perfect control over technique, executes what hovers before the mind's eye at the same moment when the mind begins to form it, without there being a hair's breath between. Painting then becomes spontaneous calligraphy. Here again the painter's instructions might be: spend ten years observing bamboos, become a bamboo yourself, then forget everything and - paint. (p. 85)

The form of art negates replication. Seemingly similar products made of the same material, in the same shape, and by the same hand, are all different. A true ARTisan aims to produce just one great piece of work in his whole life, which can be called god's moulding. In the highest level, it is a matter of life and death, as said in archery; "one shot - one life." (Ibid:34) The most appreciated technical products in the Orient thus remained in the form of

art, e.g., architecture, pottery, bells, swords, painting, calligraphy etc.

Technique in the Orient, therefore, did not espouse economic interest but artistic. In the lower level, it is viewed similarly to mercantilism. (Chuang Tzu, 5:5) As the merchant, in their social strata, was posited in the lower level, so was the technician. In the hierarchical structure of human affairs, in the sense of their significance, technique comes to the last: Heaven, Tao, Virtue, Righteousness, Affairs (or business) and technique. (Chuang Tzu, 12:1)

This tendency can be found in their langauge usage related to technique. In the simple and lower sense they just use skill, mechanical skill, or technique, but when it comes to a higher level, they add art as suffix, e.g., "Gong Yae" (industrial art), "Ki Yae" (technical art), "Seu Yae" (calligraphic art), and in the highest form they add the suffix of Tao (Do in Korean) which means the Way, e.g., "Seu Do" (the way of calligraphy), "Goong Do" (the way of archery), "Geum Do" (the way of swordsmanship), "Ki Do" (the way of 'Go'), etc. The interesting thing is that the words which are directly related to technique have added the suffix for 'art' but not for 'Do' (the way), whereas the activites which are originally related to art take the suffix of 'Do.' This implies that even though simple skills or techniques can be elaborated to the spiritual level, these yet remained in the lower level.

The central words related to technique in Chinese character are "Gong"(工) and "Ki"(技). The first character means 'work,' -- idiographically an anvil. The character even looks like an anvil or the shape of a cross cut rail. Metaphorically, technique is something happening in relation to the anvil: heated iron is shaped to the blacksmith's wishes. Whatever happens on the anvil, it requires changing, reshaping or moulding -- which means making or manufacturing. Thus most words related to making or manufacturing are composed of "Gong" in Chinese, e.g., "Gong Gu" (tool), "Gong Jang" (factory, plant or mill), "Gong Eup" (industry or manufacture), "Gong One" (craftsman), "Ga Gong" (processing or treatment), "Soo Gong" (handicraft) etc.

The second word, "Ki" which idiographically is composed of two words; hand and limb or branch, means skill. This word is linked with a simple technique, e.g., "Ki Sul" (technique),

"Ki Neung" (technical capability), "Ki Beub" (technical method). At best it comes with "Ki Yae" (technical art), or "Shin Ki" (god's skill). "Ki" is even more degraded by compounding it with negative activies like "Ki Saeing" (Gaisha), "Tu Ki" (gambling), "Jab Ki" (paltry playing games).

There is no exact Oriental word for technology. The best translation now is "Gong Hak" which literally means technical learning. Other alternatives are "Gong Eup Ki Sul" (industrial technique) or "Ki Yae" (technical art). Therefore, in most cases, Koreans use the English word as it is, so that "technology" becomes an imported Korean word. This may imply that there is no way of conceptualizing technology in the Oriental context.

They had techniques and ideas of invention, but these were viewed, in relation to external things, as a nuisance or paltry endeavour. These techniques were linked in the lower level with mercantilism, and in the higher level with art. And the pursuit of economic interest, as revealed in their social system, was blocked by the higher moral code.

C. Meaning of Meeting Two Trends

I have tried not to argue that there is an answer to technology in the Oriental way. But I tried to argue that both, the East and West, followed different ways. If the West has gone too practical and positivistic, the Orient has gone too impractical and intuitive or impressionistic.

Even though the Orient has followed intuitive meditation and simple technique, there are signs that they developed a very sophisticated way of understanding the nature of nature. One astounding feature is astronomy (perhaps astrology) or meteorology. It is almost clear from the I Ching, the farmer's almanac, or the famous Chinese ancient novel "Three Nation's Record," that they were able to understand and predict by ways not clearly known and to a quite amazing extent, the celestial movements and their effects on natural phenomena on earth. These ideas about the great laws of nature must have influenced their basic philosophy of life.

Capra, in his The Tao of Physics, compared, in numerous examples, how the Oriental views of nature, some two thousand years ago, were similar to those of the highly sophisticated

and developed modern physicists. Few examples are as follows:

> ...that a consistent view of the world is beginning to emerge from modern physics which is harmonious with ancient Eastern wisdom. (p. 12)

> The concepts of modern physics often show surprising parallels to the ideas expressed in the religious philosophies of the Far East.(p. 17)

> For a parallel to the lesson of atomic theory... [we must turn] to those kinds of epistemological problems with which already thinkers like the Buddha and Lao Tzu have been confronted, when trying to harmonize our position as spectators and actors in the great drama of existence. (Niels Bohr) .... If physics leads us today to a world view which is essentially mystical, it returns, in a way to its beginning, 2,500 years ago. It is interesting to follow the evolution of Western science along its spiral path, starting from the mystical philosophies of the early Greeks, rising and unfolding in an impressive development of intellectual thought that increasingly turned away from its mystical origins to develop a world view which is in sharp contrast to that of the Far East. In its most recent stages, Western science is finally overcoming this view and coming back to those of the early Greek and the Eastern philosophies. This time, however, it is not only based on intuition, but also on experiments of great precision and sophistication, and on a rigorous and consistent mathematical formalism. (pp. 18-19)

What brought modern physics to find this parallel were relativity and quantum theories. The essential unit of matter, the particle, was found to have two characteristics; the particle and the wave. But neither of these can be seen or measured except as evidenced by other characteristics, so it can be viewed either as a particle or wave, and they are both mutually exclusive. They exist inherently in an integrated, unified, interrelated form. "The more a particle acts like a particle, the less it behaves like a wave -just as the clearer the position of a particle becomes, the more fuzzy its motion becomes (and vice versa).... In the most extreme cases, focusing sharply on one aspect of a situation can actually destroy the other." (Cole, *Discover*, Nov. 1983:62-63) Thus the parallel is found;

> The most important characteristic of the Eastern world view -one could almost say the essence of it- is the awareness of the unity and mutual interrelation of all things and events, the experience of all phenomena in the world as manifestations of a basic oneness. All things are seen as interdependent and inseparable parts of this cosmic whole; as different manifestations of the same ultimate reality. The Eastern traditions constantly refer to this ultimate, indivisible reality which manifests itself in all things, and of which all things are parts. (Capra, 1975: 130)

> Quantum theory has abolished the notion of fundamentally separated objects, has introduced the concept of the participator to replace that of the observer, and may even find it necessary to include the human consciousness in its description of the world. It has come to see the universe as an interconnected web of physical and mental relations whose parts are only defined through their connections to the whole.

> .... The Buddhist does not believe in an independent or separately existing external world, into whose dynamic forces he could insert himself. The external world and his inner world are for him only two sides of the same fabric, in which the threads of all forces and of all events, of all forms of consciousness and of their objects, are woven into an inseparable net of endless, mutually conditioned relations. (Ibid: 142-143)

What both, the East and West, approaches found is that the essence of nature exists in an integrated form. Changes in nature are in a complementary fashion. K.C. Cole writes how the modern, leading scientists view the complementary nature of nature (*Discover*, 1983:62-63);

> Niels Bohr said that "the reality of nature required complementary descriptions - more than one point of view."... Complementary descriptions are required for a full spectrum of understanding, just as a full array of colors is required to produce pure white. Complements are the Yin and Yang of science. Or, as the physicist Emilio Segre wrote, "It is one of the special beauties of science that points of view which seem diametrically opposed turn out later, in a broader perspective, to be both right."
>
> Complementarity is far more than just the physicists' fancy version of "on one hand/on the other hand." It not only says that two opposing views can be correct; it also says that two correct views can be mutually exclusive.
>
> Weizenbaum... is afraid that society's love affair with computers is a symptom that the scientific mode of thinking is becoming "imperialistic." Not that scientific thinking is bad - only that it is dangerous when it overwhelms all other approaches.
>
> Max Born concluded that the trouble lay in the inclination of philosophy and also science toward "final, categorical statements." He wrote, "If quantum theory has any philosophical importance at all, it lies in the fact that it demonstrates the necessity of dual aspects and complementary considerations.... Much futile controversy could be avoided in this way.
>
> For centuries, people argued over whether light was essentially a wave or essentially a particle. Today, this seems as superfluous as arguing about whether space is blue or whether it has mathematical properties. Each, in its proper context, is true. This doesn't imply that the "whole truth" lies somewhere in between the two viewpoints: complementarity is not a compromise.
>
> Accepting complementarity merely means accepting that the other side of truth is not necessarily heresy.
>
> Born wrote ".... The belief that there is only one truth and that oneself is in possession of it seems to me the deepest root of all the evil that is in the world."

Even though both sides (East and West) followed different paths, they have reached the same or similar view of nature. The nature of nature is not only integrated but also exists in

a complementary fashion. So neither approach, be it Western or Oriental, is wrong. What is wrong is to accept only one paradigm and reject others. What a concomitant conclusion about nature suggests, however, is that the Western notion of man in relation with nature must be shifted from "man and nature" or "man over nature" to "man in and with nature."

In the complementary context there needs to be not only two sides. There may be many others. The Oriental views of nature or technology provide an understanding that there is an array of different views, approaches, theories which are not necessarily wrong. It may open other possibilities of approaches which will lead to more open questions -- that is, what Gadamer said to be the true question. The critical approach also allows us to view any problem from all possible perspectives. It is not closing our views, but opening them up.

If Western technology creates much social ills, now we can say that it is because of its predominant character. We need to dilute our strong belief in science, technology and the way of thinking rooted in the Western tradition, to the extent that we can accommodate other complementary views. The hope for the future lies not in holding and insisting on one most plausible view, but in the openness of our questioning to embrace other views -- however trivial, irrational, mystic these views may seem. In this openness lies the task of development, particularly the task of educational development.

D. The Western Notion of Development

The concept of development is closely related to such concepts as advancement, progress, modernization, and indirectly but more essentially with economy and technology. It would be helpful to grasp the denotation of "development."

Develop:
To unfold;
To cause to increase in power, strength, etc.;
To bring forth what has been entirely hidden;
To unfold gradually; hence, to bring through a succession of states or stages, each of which is preparatory to the next.

Development:

> An unfolding;
> The growth from a cause;
> Growth or production;
> The unwrapping of what has been entirely
> shut out from view;
> Gradual increase or evolution,
> Gradual advancement of growth through a series
> of progressive changes.
> (from March's Thesaurus)

Thus the meaning of development is related to "effect," "creation," "enlargement," "increase," or "evolution." But, of course, this is more than simple growth which means 'natural and gradual increase.' To such growth is added human intention. From the above definitions of development we may catch a similarity with that of the essence of technology we reviewed in the previous chapter, particularly "unfolding" or "bringing forth what is hidden."

The concept of development is, as is technology, basically a process concept rather than an object. In the modern era, however, the conversion of means and end is made with development as well. Thus development itself became the utmost, important task -- the "end," particularly for non-developed countries. They no longer question development for "what." Unwittingly they admit that which is implied in the development. Underlying this assumption of unwittingness lies the dominant paradigm of development. Dr. Chung (1981:13) wrote;

> No matter how development is defined, however, in practice and reality it is taken to mean economic development foremost, overriding other aspects of development in the political, the social, the cultural and the intellectual spheres. In fact, these aspects are taken to be the means to economic development.

Here all areas of development, be it scientific, technological or intellectual, are subsumed under economic development. Thus development is equated with or PRONOUNced as economic development. Almost every aspect of human life, therefore, converged with and directed toward economic development. Toward this cardinal point, the more directly conducive areas are to economic development, the more important these areas become -- and the more closely they are equated with development itself. Science and technology are crucial to economic development. Thus technological development came to be equated with economic development. Education became secondary. That is the criterion upon which most developing or underdeveloped countries place their policy priorities.

Considering all possible attributes of development, then, it can be defined as 'intentional progressive change toward material expansion and novelty (which means 'modern') with a high speed, in an efficient and massive way.' Some aspects of this offered definition, e.g., "speed" or "massive," are from the experiences of recent developmental phenomena. What the above meanings of development are concerned with is "external things." Human development is a recent phenomenon, if not totally new, then a revival.

The dominant economic tendency of development, what Hochschild (in Marshall, 1982:4) refers to as the dominant paradigm of development, "... is rooted in the objective consciousness of Western intellectual tradition." In the context of the developed and underdeveloped relationship, Marshall (1982:5-6) summarizes the assumptions or value premises about the nature of the dominant paradigm:

> 1) the inferiority of underdevelopment when compared with the state of development in the advanced countries.
>
> 2) the present level of development in advanced countries and the corresponding type of society should be taken as a model and be accepted as an objective by the underdeveloped countries (Zeylstra, 1977:117).
>
> 3) the system can be changed by changing some of its parts or their characteristics (Frank, 1969:37).
>
> 4) the belief that it is obstacles or resistance to the diffusion of western ways of doing things within the developing nation that causes underdevelopment to persist.
>
> 5) the acceptance and promotion of passivity in the peoples of the underdeveloped world in welcoming the diffusion of foreign aid.
>
> 6) developing nations will do well to study the historical sequence of western growth (Lerner, 1958:46).
>
> 7) in the traditional modern dichotomy, traditional is defined negatively (Zeylstra, 1975:141) and modernity is equated with development.
>
> 8) the West is what developing nations seek to become (Lerner, 1958:47)

Here the points are: that underdevelopment is inferior; that the criterion is the West; that the "building block" rationality is prevalent; that "dependency" is the chronic problem; and that tradition is viewed as the obstacle to development.

This dominant paradigm of development has spread widely and has been practiced throughout the whole of underdeveloped countries for the last three or four decades (particularly after the Second World War). The results are, as many examples show, by and large miserable. Basil Davidson argues, (for example, in his Can Africa Survive?(1974)), how most African countries are poorer since their independence than they were in their colonial period. In most cases there were increases in terms of GNP, but the average living standard of most of the people dropped drastically because of the unequal distribution of wealth. I. Adelman and C.T. Morris(1973:192, 201-2), in their study of developing countries, report that:

> The frightening implication of the present work is that hundreds of millions of desperately poor people throughout the world have been hurt rather than helped by economic development. Unless their destinies become a major and explicit focus of development policy in the 1970's and 1980's, economic development may serve merely to promote social injustice....
>
> Development policies that ought in principle to have made for a more equitable distribution of income have served merely as additional instruments for increasing the wealth and power of existing elites. Even more serious, new elites, many of whom owe their power to development programmes, have become adept at manipulating economic and political institutions to serve their private ends....
>
> The only policy instruments that offer some hope for significant improvements in the standard of living of the poor require a basic reorientation in development strategy. In our opinion, the only acceptable strategy for the decades ahead is development of the people, by the people, and for the people. Without new institutions and policies specifically designed to improve the lot of the poor, there is no realistic chance of social justice in the underdeveloped world in our time. (my emphasis)

Economic development is, as was stated, inseparable from technological development, particularly in the underdeveloped countries. Therefore, the primary concern for economic development is whether countries have the technology for the development of the economy. Technology is viewed as the very means for economic development. In most of the Third World countries, thus, the problem of technology is the same as the economic problem. A. Vafa and M. Drobyshev (1974:208-219) gave as the reason why the Third World countries failed in technological development:

> In the technological arsenal of the countries of the "Third World" modern automated machine system exist simultaneously not only with the machine, mechanisms, and devices typical of the era in which capitalism was affirmed in the

> principal European countries, but also with implements of manual labor which belong to the Middle Ages and even earlier eras. The complexity of the tasks facing the countries of the "Third World" in the sphere of technology lies, thus, in the fact that these countries are faced with completing a modern scientific and technical revolution without having begun, or at best, without having completed the technological reforms which took place in the developed countries in the era of the first industrial revolution....
>
> When examining the modern scientific and technological revolution in this connection it must be said that where it lacks the appropriate social and political conditions, it cannot develop into an industrial revolution, and as it develops, the technological revolution only sharpens the contradiction existing between the potentials within it and the social obstacles standing in its path. This, further, just as inevitably sharpens the social contradictions in society.

In the same article, Vafa and Drobyshev denounced the irresponsibility of developed countries:

> The point is, however, that introduction of the capitalist factory in the colonies did not merely lead to the division and opposition of physical and spiritual potentials of production. As a result of the policy of the colonizers it assumed a more perverted form, for the production of knowledge and formation of labor forces of knowledge was taken away from these countries. The monopoly in production and use remained in the hands of the colonizers. This was one of the powerful factors which hindered the development of the industrial revolution in colonial and dependent countries, the influence of which to this day has an effect on the "Third World."

In fact, there are increasing numbers of people who have begun to criticize the rich and the ones who have power in the relationship between the developed and underdeveloped countries. "A History of the Modern World" written by Paul Johnson is a remarkable record of modern history covering from 1917 to 1980. As a journalist, he collected all possible data from reliable sources and edited these in a form of a history book. But it is, in a word, a record of chaos. It seems to me that the most developed, the most modernized civilizations in this century, left the most miserable and cruel record of human history. At the same time, as was in the past, it is a record of those who held the powers, those who were most educated, therefore, who were the most "rational" beings, compared to previous eras. Of course, there were some triumphant events but only at the cost of the miseries of the masses. It seems to me that this single book shows amply how the development of technology, economy and the intellect contributed not to the enhancement of human life but to its detriment.

We all may know, not necessarily from hearing the prophets of crisis, how chaotic world history is even now. The people who are living in an affluent society tend to turn their

eyes and ears from the real scene. A simple fact is that one-fifth of the world population which lives in the developed countries possessed eighty percent of the wealth of the whole world. I am not arguing that the developed countries are responsible for the miserable situation of the underdeveloped ones, nor that the former should provide more aid to the latter. But I want to argue that there should be other conceptions of development than the positivistic, technological paradigm.

In such a context, there appears the so called "liberation" or the "third world dissenter's" paradigm. This is a reaction to the "dominant" paradigm of development. The liberation perspective tries to view underdevelopment neither as absolute and relative material deprivation, nor as an inferior degree of development.

Poster-Carter (in Marshall, 1982:6) points out that the dominant theory "... assumes that development is a process of evolution from traditional to modern. Therefore, development became a question of how 'we' can make 'them' more like 'us'." She indicates that this mode ignores two underlying assumptions of liberation thinking: the historical context of underdevelopment and the developing world's relationship with the developed world.

In counterpoint to technological development, the underlying assumptions of the "liberation" approach to development are the following(Marshall, 1982:7):

1)the concept of development is seen in an historical context in which a nation takes charge of its own destiny.

2) the dependency role of the developing nations in relation to the developed world is the major source of underdevelopment.

3) the relationship between the developed and the developing world is not favourable to the developing nation.

4) the existing framework for the extension of aid and trade to developing nations promulgates this unfavourable state and widens the developed-underdeveloped gap.

There are reactions to the dominant paradigm such as cultural imperialism and neo-colonialism. A strong argument seems to converge on the dependent relationship of developing nations to the developed ones. Illich(in Bacchus, 1970:9) argued this point also; developed societies often "try to foist pre-packaged solutions on the Third World" and the

"surrender of social consciousness to these pre-packaged solutions" constitutes the essence of underdevelopment. In this regard, Mazurui's(1975:341) definition of development in the Third World as "modernization minus dependency" is interesting.

While this liberation perspective provides re-thinking of development as a reaction formation, it seems to lack clear guide-lines for the development of a "new concept of development."

The liberation perspective also has an undercurrent of "economic interest." Most assumptions of the liberation perspective are concerned with how economic advantages are shared between the developed and the less developed countries. There is only a different emphasis or different direction; they count and give "economic development" supremacy. In other words, their ultimate target is still the achievement of economic development. Their basic philosophy is not very different from the dominant paradigm which says "money is everything." Their task for development is economic and political struggle against the developed countries, using the same dominant paradigm as a weapon, not unlike "an eye for an eye."

There are other critical thinkers who view development from other than economic and technological perspectives. They write of "human development." They view the meaning of human being, its precious values, to have been diminished, twisted and demolished in the processes of economic struggle. Thus the solution, they think, lies not in economic or technological interest but in human being itself. Of course, they do not deny the importance of the economic aspects of human life, but they emphasize that there are more important aspects in human life than money. In fact, this is a simple historical truth everywhere. Human consciousness, love, art, morality, humanity, friendship -- these are no doubt exactly what human beings are striving for in order to live a meaningful life. Money is a simple means to secure, not necessarily always truly though, these human qualities. But in the modern era, most people seem to have sold out these qualities for money, with which there is no way to buy them back.

Such arguments may sound particularly to the "third world dissenters" like another hypnotizing strategy of the rich to the poor. They may argue what on earth love or humanities matters in the state of the marginal poor of life and death. If not totally untrue, though, this is much exaggerated. We must admit, nevertheless, that there are paradoxes in human life. In abject poverty, of course, it is of less use to talk of human qualities. On the other hand wealth does not guarantee these qualities either. Rather, in an affluent state there are dangers of losing it. This is also a historical truth, be it Occident or Orient. Therefore, it is obvious that neither extreme is desirable.

At present, we can see that there is no hope either in the dominant paradigm nor in the reactionary paradigm of development. The answer should be sought somewhere else or in between. That is a very difficult task. Human desire is the very motive of human action, but when exceeded, it inexorably swallows up the man himself. Here lies the art of living. Here lies the need to develop human qualities which can open the hope of overcoming the human dilemma. Education for human development is the task for everyone, everywhere. This concept of human development is in accordance with the Oriental notion of development.

E. Oriental Notion of Development

There are many similarities between the meaning of the word "development" in the Orient to that of the Occident. There are two words for development; "Gae Bal" which is composed of two characters, meaning "open" and "expand or rise" respectively; and "Bal Chun," which contains "expand" and "unfold." The concepts of "expanding" and "unfolding" are similar to that of development in English. But "opening" gives a different tincture. In the early stage, the latter was popular but in the present the former is more often used. When one wishes to make a compound word and development comes last (e.g., 'economic development' or 'educational development'), then the former "Gae Bal" is used. But when 'development' comes first (like 'development education') then the latter "Bal Chun" is used more often. Education is "Geyo Yeuk." Therefore, educational development becomes "Geyo Yeuk Gae

Bal," and development education "Bal Chun Geyo Yeuk." But this distinction is not always clear, so people sometimes use these two words interchangably.

But a subtle difference lies in their connotation. The "Bal Chun" has a more strategic and technological connotation, whereas the "Gae Bal" is more directed towards opening up to oneness or wholeness -- that is a wholerounded personality. Even though the Oriental ancients had the characters or the words, I think, they did not use the words in the same way that the English 'development' is used. The reasons are that there are different words for development, and also that we can hardly find these words, in the form they are being used now in Oriental classics. Perhaps we can assume that these two words for development have been translated from English.

As with technology, we can say that there was no word for development as it is used in English. In the process of translating the word, however, we can think that their traditional philosophical background was reflected. As we reviewed the Oriental tradition, they put more emphasis on "inwardness" than "outwardness." The "Gae Bal" as a way of developing a wholerounded personality is based on their basic philosophy of seeking integrity or harmony with nature. They obviously viewed a "rounded" personality, regardles of its size, as better and more desirable than a "squared" one. Perhaps "round" and "big" would be more desirable than "round" and "small." But essentially they did not put much emphasis on "bigness." Rather, they seemed to have appreciated that "small is beautiful." They constantly preached that "in smallness is subsumed already the bigness and the whole." Perhaps they must have known that the smaller it is, the rounder it may easily become. The sayings which appreciated the beauty of smallness abound; e.g., "A big tree has no time without disturbance by the wind," "A small hot-pepper is hotter than a big one."

Another connotation implied in "Bal" (expanding) and "Chun" (unfolding) is that it is a "rolling" unfolding or expanding. All kinds of mattresses, be it for inside use or for the outside for drying grains, are kept in a rolled-up involuted fashion. When it unfolds, it should be rolled out. A paper roll is another example. "Rolling unfolding," therefore "expanding," is

exactly what these words mean. That is what my grandfather explained to me when he taught me these words.

The important points, I think, are firstly, the rolling concept, and secondly, that they seemed to have presumed that there are limits in any unfolding, just as there are limits in any rolls. In order to develop as a round personality, it needs to be rolled like a rolling stone. And there is no unlimitedness in expanding, in development. The limit should not necessarily be viewed negatively or pessimistically. In fact, there are limits in every aspect of human life; e.g., the life span and human capabilities. As for the rolling ground, I think, there is no choice but one's own culture and history. Also, rolling implies something going on as process.

Everything, I think, exists in a relativistic and complementary fashion. In the relativistic concept, if we are to emphasize one aspect, it is only possible by diminishing the other. Here we always need to make compromises. To some degree this is correct. But in the complementary concept, emphasizing one aspect may cause other aspects to grow as well, and vice versa. If we think of love, in the former paradigm, the feeling of love is accompanied or activated by the counter feeling of love. The deeper and happier love feeling one is to get, the more agonies, the deeper sorrows one needs to have in love affairs. It is like "... where sorrow is, grows the joy as well." In the complementary paradigm, however, the deep love feeling can be aroused not necessarily only by a counter feeling of it, but by something else as well. It is like what G. Bachelard (in J.J. Kockelmans and T.J. Kisiel, 1970:314) says of the "dialectic [which] is built not on the principle of contradiction but on the principle of complementarity."

We can think of the "rolling" in these two different ways. In the rolling stone, if one part stands out, it needs to be ground out in order to keep it round. But in rolling snow, we venture to make a little square in order to complement other concave parts and to make the ball bigger and round. A caution should be directed here not to make the 'square' to the extent that it causes imbalance to the whole ball. Furthermore, there are, of course, limits to one's capacity to make the snow ball and to the snow itself in the yard. But endless bigness loses its beauty and thus, the meaning of making it.

Even though the discussion followed a metaphorical fashion, this is, I think, the way in which we can grasp the underlying meaning of development in the Oriental context. Given the Oriental context of development as such, the Oriental notion of development appears clear. It is directed toward human development which is a rounded personality. In the process of the development is implied the expansion, perhaps not without limit, and unfolding as a process of rolling. "Hong Ik In Gan," the Korean ideal image of being, appeared as the sublime purpose of education in the Korean Constitution. The words mean the human being who is vastly beneficial to everyone (the first character means 'vast,' the second 'benefit,' the last two 'human being'). This is in congruence with the concept of human development. Here we can find a parallel with recent efforts of human education development.

F. Situating Development in Education

> The quality of our life in the future will be determined by the quality of our thinking.(de Bono, 1979:19) Personal transformation is an essential key to solving the world problematique.(Club of Rome)

Education has existed alongside evolving human society. It is one of the essential concerns of both individuals and society. It is not at all strange or new that educational problems have been a very sensitive topic for societies -- education and society are in a reciprocal relationship.

In the modern era, this reciprocity (inter-pulling and pushing relationship) is breaking down with the excessive priority of society over education. The latter is becoming a handmaiden of the former. Education is thought of as a factory which manufactures products for whatever society asks: "With a supply and demand mentality, and a cost benefit analysis, schools are seen as 'factories' in which raw materials are to be shaped and fashioned into products to meet the various demands of life."(Cubberly, in de Castell, 1983:12) Wirth(in Paradis, 1983:40) raises the question: "To be blunt and to oversimplify, the choice then and now is whether schools are to become servants of technocratic efficiency needs, or whether they can act to help men humanize life under technology."

In modern technological societies, many of us are sensitized to think that more products, services, efficiency and effectiveness are inherently better. The needs we have as human beings for love, communication, self-esteem, freedom and creativity are perceived as secondary to the greater need for more technological progress.

We do not lack, at this time, elaborated theories nor beautiful words nor sophisticated media. We do not lack "high technology" nor the strength of hand holding which symbolizes "U.S.AID" to the less developed countries. But, we do lack, perhaps because of the excesses of the above, the messages, trusts, hopes, expectations, love, truth .. all of which ought to be put into the form of the former. In other words, not the form but the content is lacking. Not the systematic or legally sufficient words expressed in the documents of marriage but the mutual trust and self-abandonment for the other which is the basis of love, whose paucity causes the decay of the family.

Education has been overwhelmingly accepted and almost totally taken for granted, without condition, virtually everywhere in the world. While it is everyone's concern, its essence has rarely been questioned or criticized. Many of us think of education as "the more, the better," yet seldom raise the question, "Better for what?" Now is the critical moment when we need to ask "What is education?" as well as "What is education really good for?"

In the technological society, education has been exploited as a means to technological and economic development. Educational development, therefore, has come to mean the one which is conducive to technological and economic development. Within this dominant paradigm, concerns of education have been directed only toward "how," instead of toward "what" or "why." Most educators and educational researchers have been unwittingly entrapped by this "how" mentality. In the context of equating the means and end or the conversion of these, they have even lost the sense of questioning the differences of the two. Discussions become futile because for the majority the "how" mentality is taken for granted.

The situation is worse in the developing or underdeveloped countries. Any concerns other than "how" are viewed, to the majority, as the defeatist's or the perpetrator's, whose

opinions widen or perpetuate the gap between the developed and non-developed countries. In fact, what modern history shows us is the reverse; the majority of the elites are the perpetrators, just as we saw in Adelman and Morris.

There is a widely used phrase in Korea; "If you are maltreated, then become higher than the other." This was used as an accusation against the malfunction of the society particularly after the Korean War. These words became almost 'taken for granted' or ones carrying a large extent of unswerving truth. In fact, there is a short non-fiction related to this. During the Korean War, soldiers were the most important beings. The story took place, during the War, in a public bath in Eusung, the famous hotspring in Korea.

> A young man got into the public bath without towel and soap. The young man used an old man's soap next to him without asking. The old man did not say anything. While the old man got into the tub, the young man used his towel without asking again. At this point the old man gently advised the young; 'Young man, if you did not bring your towel and soap, you could have asked to use mine. Using someone else's without permission is not proper behaviour. Isn't it?' The young rebutted; 'What's an old hack talking about such a trivial matter!' An observer in the tub interrupted; 'How could a young man be so rude to an old man!' The youth got angry; 'What kind of mouse are you, and what kind of business have you with this without knowing the world. I will kill you both. Such trash should be removed!' He got out of the bath, and a while later came in with his uniform on and wielding a pistol in his hand. He was an M.P. sergeant. 'Come on mice! If you still have a mouth, shoot it, I will allow you the last chance for the last word,' the youth shouted. The observer admittedly asked; 'If this is the last moment for us, then let us die with our clothes on instead of naked.' The youth said, 'that sounds reasonable, come on then!' They came out of the bath and the two began to put their clothes on. The observer turned out to be a captain, and the old man a full colonel.

For most Korean students who are studying abroad, past or present, the ultimate and the utmost important purpose of their study is to get a certificate. Other answers or concerns than this are openly accused to be sophistication. While they are studying they prepare a 'package' of new theories or knowledge with which they can sell after returning home. This is the so-called academic ethos in which their predecessors advised them. Academic pursuit and cultivation of personhood have long been separated. The pursuit of truth and wisdom or cultivating a rounded personality are educationally of no more value than, e.g., taking a real estate certificate[70]. The result is often the case that the least moral person turned out to be the

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[70]Korea recently began to issue a certificate for dealing real estate which was previously dealt by old men in leisure and for small money. Now it has become a

moral education scholar, the least prepared educators the educational researchers or educational scholars.

Under the dominant paradigm, which in a sense exceeded the West, all the present procedures of education are legitimated or taken for granted. Under the philosophy of dualism, which further developed to segment all aspects of human life, they sometimes talk about the intrinsic values of education or human being, but not more than as a verbal decoration. In fact, and in practice, their philosophy of education has been overwhelmed by external things and values. One example is that human behaviour, including values and philosophy, is believed to be changed, moulded, manipulated and controlled by external conditions or the environment, according to the principles of behaviour modification or social Darwinism. They believe that education which is not related to economic return is useless and a waste. Thus, education for old people is more a waste than for young people.

Good human relations, trust, caring for others, morality, love ... all of which once were the core concern of education and the meaning of life, now turned out to be a simple decoration or calculated and bargained in terms of economic benefit. External things have become the sole concerns of educational development. Chuang Tzu, at one point, prophesied that, "Within a few thousand years, there will come a society in which people eat other people." The present situation in Korea is not much better than killing each other for the acquisition of external things.

Educational development, thus, is fashioned solely in the way of the predominant paradigm of the West. I temporarily defined the development in the dominant paradigm as "intentional progressive change toward material expansion and novelty, with high speed, and in an efficient and massive way." These are the attributes of development applicable to all areas of development, be it economy, technology or education. Educational development is in the exact suit of this definition. The reason I said that Korea in a sense exceeded the West in the developmental concept is that, in a highly bureaucratic system, they practice it in a massive or

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[70](cont'd) lucrative business and the competition rate for the certificate is enormous.

wholesale scale in which, without many critiques, the masses are imbued with that direction. And in this process, they ruined or substituted the traditional values which are rooted in the meaning of human existence. The Korean situation is similar to what Brownell (in Sessions, 1983:33) said; "Our [Western] culture is a culture of escape and substitute behaviour.... Substitute behaviour forces us to separate emotion from direct action; and this separation is the essence of decadence."

Having reviewed the Oriental and Occidental notion of development as such, we can come to understand that there is little hope in the "dominant paradigm" of development. In fact, most social ills and malfunctions modern society as a whole faces are now widely said to have been caused by such a "dominant paradigm." And this is due to the concept of the relationship between man and nature which is rooted in the Western tradition. This paradigm is based on an erroneous view of man and the world which not only alienates humans from nature but also alienates humans from themselves and from each other. Michael Bopp (1985:156-169) summarizes seven assumptions about the nature and purpose of human existence that have undermined human development processes all over the world:

1. Human beings are "masters and possessors of nature" (Descartes)
2. Man is a machine (Newton)
3. Man is an economic being
4. Human beings are animals.
5. Human beings are essentially separate from one another.
6. Human beings are fundamentally rational beings.
7. Human beings are material beings; therefore human happiness arises out of materialism which is a natural human trait. To have is to be.

In such a context, which can be understood as the "scientific/technological world view," education became the handmaiden of socio-economic demand. Sessions (1983:27) puts it this way; "Having succumbed to the value relativism and the business mentality of the 'give the customers whatever they want so long as it makes a profit' of the society-at-large, the educational establishment is no longer in a position to make sound judgements concerning

quality education." Thus no human values or human nature are understood but as a commodity to be manipulated, managed, bargained and controlled for material benefit.

Here appear the voices of the so-called "liberal education reformers," "human development educators," or "evolutionary transformationalist." Their primary concerns are to understand the authentic human nature and the nature of the world. Then, on these bases to re-establish or restore the primordial relationships between man and nature (which is 'man in and with nature') and man and man; and by so doing to find the way of freeing or emancipating human beings -- thus to enrich the meaning of human life. Bopp (Ibid:204-205), in the evolutionary transformationalist's point of view, summarizes the image of human beings in relation to the universe as follows:

> 1. The human species is engaged in a perpetual process of emergent becoming.
>
> 2. This evolution is fundamentally a cultural and spiritual process, but is expressed simultaneously in many human activities including the personal, social, economic, geo-political, ethical, legal, technical, biological, ecological and philosophical-theoretical domains. Hence a wholistic approach to understanding human processes is indicated.
>
> 3. Human beings can be conscious participants in their own evolutionary process, and as such can help to direct the course of human development on this planet.
>
> 4. The emergent outcomes of the human evolutionary development process is the transformation of the relationship between human beings and the universe (see Pearce 1980:185-6) which is, in effect, the transformation of the "world."
>
> 5. The human evolutionary transformation process can only be understood in relation to the wholeness of the universal context of which humanity is a part. This context includes the ultimate unknowns underlying the ordering of the universe.
>
> 6. The ongoing process of human transformation necessarily subsumes and incorporates all previous human development into current stages of the process, but that entirely new dimensions of human possibility, not pre-figured in previous stages, are constantly emerging.

There is no doubt that educational development should be directed toward human development, that is, to develop a human consciousness which can lead to a true emancipation of human beings. But we wonder whether we should subscribe to this idea overwhelmingly. If we follow this idea to its extreme, it will lead to a religious world. Just as we can not expect all students in an I.Q. Development Programme to turn out to be over I.Q. 150, we can not expect

all people to be totally free. Just as a society which is composed of all geniuses is hardly desirable, so too a society which is composed of all saints is undesirable. Just as an unlimited freedom is itself a prison or to be lost (Barrett says, in the Sahara, which is open vast, you are only lost yourself), the superbly emanicipated being can hardly be conceived of as an ideal being, because then he may not be a being but Being[71].

There is again a paradox of human life; you can not live by bread alone, but without bread you can not survive. Again mere surviving means nothing. We need to live within our own means. We need to be optimistic but also pessimistic. We need to be rational but mystic as well. Life is essentially paradoxical, so we need to be and live in the paradox. True emancipation may be found by immersing deeply in the situation where one is now. True freedom may be found within some limit to the extent that this limit is not exceeded just as a fish is free only within the limit of water.

The reason we emphasize human development is not to negate the development of external things. It is to keep harmony between "inwardness" and "outwardness" in the situation where the latter is overriding the former. If we could make it reverse, the former overriding the latter, by means of education, the results would be not much different. Of course, if we compare these two in terms of education, in terms of ways toward the meaning of human life, much value should be put in the former than in the latter, but not at the cost of destroying the latter. What proportion of emphasis would be arranged between these two aspects in education is the task of educational developmentalists.

For example, in the earlier stage of developmental education in Korea, we adopted the positivist paradigm of McClelland, and developed such programmes as "achievement motive," "positive self concept," "creativity." The basic concepts of these programmes, I think, are

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[71]Kwon Chung Dal, whose Taoist name is 'U Hak Do Sa,' ninety five years old Korean living Taoist, explains, in his Dan, the ways of practicing Tao. In his youth, he had a lot of Taoist colleagues some of those had reached to the highest level. Even though they had unimaginable capabilities to do almost whatever they wish, they had no interest at all in human or social affairs. So he suggests that it would be better to reach an appropriate level but not to that high and transcendent a level.

directly in opposition to most of the traditional values such as "cooperation," "humility," "good human relations," "condescension." I think we cannot choose any side at the cost of the other.

What the meaning of meeting, and the results of both, Oriental and Occidental ways shows us is not to choose between "either/or" but to make constant harmony in the context of "and." Man should be in harmony with nature and other beings but most importantly with himself. In this sense we need to put "only more" emphasis on human development in education. Oscar Wilde seems to be right; "It is absurd to divide people into good and bad, people are only either charming or tedious." The charming personality can best be attained by achieving harmony within himself and with others as well. Therein lies the task of human development education. We need both metaphors; the rolling stone and the snowball, as complements.

In our endeavour to promote educational development, we need to question those attributes imbedded in the dominant concept of development. Change, progress, material expansion, novelty, speed, efficiency, mass ... these are the words we need to look at from different angles. From such efforts we should emerge with an ideal image of "educated man."

V. Reflection

Although I am ready to place a mark that signifies a pause in the study, the very pausing beckons me to reflect upon my experiences of the lived moments in my journey to this point. Such a reflection urges me to turn thoughts upon myself and light falls even dimly upon who I was, who I now am, and even who I am not yet. In my return to my experiences, I find my many moods and many thoughts.

Feeling that these moods and thoughts are lived moments integral to my study, I offer with hesitation some of them - those which seem to resound the themes of the dissertation at a deeper level. I offer these under the following themes:

(A) My home tradition revisited,

(B) In-dwelling between East and West as a student in Canada,

(C) A re-newed understanding of educational development.

A. My Home Tradition Revisited

I am about to re-turn to Korea to participate again in the life of KEDI. But even before I return, I have a strong sense that the undergoing of this study has attuned me to re-visit Korea, my home, as if it were the first time. Is it possible that in distancing myself somewhat, yet participating in the experiential sense, contains the mysterious power to allow me a new seeing? Is it possible that in the in-dwelling within the tensionality of the dialectic as I have done in this study opened up a fresh way of seeing?

So although I have not yet returned, I have returned with a refurbished understanding of Korea, my home. Within this re-understanding of my heritage, my understanding of tradition has assumed a new texture. What is Korean tradition? I now find this an unanswerable question in the same simple way I can answer, 'what is life?' We can only glimpse the tradition as it appears in Korean ways of living, thinking -- in their consciousness. As we re-viewed Korean history and culture, the most important nucleus was found in the concept and structure of the family, and in the view of nature. The characteristics of these can

be described as "oneness" which subsumes different things together in harmony. "Han[72]," in Korean, means "one," but also means "bigness." Many Korean historians have said that the "Han" was the essence of Korean culture and tradition. This "Han" encompasses sometimes ambivalent things, but it tends to dissolve everything into oneness. Thus things often appear "mixed up," like "Bibimbab" in Korean cuisine. This makes it hard for foreigners to understand the texture of Korean culture. We will review some aspects of the Korean consciousness rooted in its traditions, but because of its character, it is difficult to differentiate these aspects or categorize them distinctively. They are, in one way or another, interrelated. I offer the following sub-themes as a way of savouring this texture:

- "I" in "We-ness"
- Diminishing "I-ness"
- Dependency
- Whole-Set Consciousness
- Twilight Zone
- Many Happinesses
- Life and Death
- Returning

"I" in "We-ness"

Individuals are subsumed or submerged into "We-ness." This is the case not only in families but also in organizations. Getting a job is not simply a contract between an individual and an organization -- the required task. Employment means the individual's total belonging to the organization.

In the Western dialectic, the contradiction of thesis and antithesis leads to a new dimension of synthesis. But the Korean dialectic immerses into the "one" that is the "authority." "Euchapi," in Korean, the character literally means "herein this and that" and

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[72]This is a pure Korean word and is different from the "Han" discussed in chapter two which is borrowed from Chinese.

therefore implies "after having reviewed thesis and antithesis," but in practice means "anyway" or "after all." The word's connotation is that individual opinion should be succumbed to the group opinion, the weak should belong to the strong, and "I-ness" eventually becomes minimized or nullified in front of "We-ness." There also is a strong connotation which leads to fatalistic determinism. Another example is that in most cases when Westerners say "do," Koreans use "be done."

The unified concept of "I" into "we-ness" can lead to the feeling of belonging with each other among those who are close. The close relationship which is called the "relationship of no distinction," enables Koreans to spare uttering words like "I love you" or "thank you" between those who are really close. They have no need to say such words between themselves, because the other party is no longer one of others (no distinction). Therefore, if one says "thank you," it would be like saying the words to oneself. Also they elaborate, by keeping quiet, the feeling of thankfulness or love so as to have these intensified and deepened. Therefore, if one were to say such words to those who are close, it alienates their close relationship. If a Korean husband says to his wife "I love you," she would feel strange and suspicious as to whether he had a secret lover other than herself. Lee Gieu Tae (1976:282) introduces a scene out of a Korean novel; "a son who returned from some years of study in Japan told his father 'Thank you' for the more than enough allowances sent to him during his stay in Japan. The old father who felt a deep sorrow by these words as if his beloved son, imbued with the 'new trend,' was to separate away from him, turned around and dropped a tear."

There is a saying in Korea; "a quarrel between a couple is like cutting water with knife." The relationship is not only inseparable but also ready to be reunified. Other relationships among those who are close, like close friends, are more or less the same. They hate to make lines between them, so they do not cherish material things. They have long thought that money and counting it would hurt human relationships, and eventually degrade human qualities to the material level. Even though such concepts have changed a lot recently,

lending money without documentation and not counting the amount of money in their giving or receiving of it are still widely practiced between those who know each other well. If the money is counted, it is considered that their relationship is not close.

Everything goes with "appropriateness" which is in a sense equivocal. In fact, this "appropriateness" is one of the words Koreans like most. Sometimes even private and public affairs are dealt with appropriately -- without clear distinction. But quality is counted instead of quantity. That may be the reason that the numeral was not well developed in Korean language.

Diminishing-ness

From this close relationship in which everything is dissolved into one, that is "we-ness," there appeared other aspects of Korean character. In order for one to subsume to the "big one," one may need to diminish oneself. Therefore, whatever appears as small, weak or humble, is appreciated. People prefer to sit in or join with the weak side rather than the strong. "Yeppeda," a different expression for beauty, means a beauty in the state of smallness, slimness or weakness, especially when referring to the female. Perhaps Koreans have long known that "small is beautiful." When this smallness is directed towards oneself, it turns out to be humble and self-restraining. In this way, they must have thought that human quality reaches its mature level and leads to a beautiful and happier life. Furthermore, it opens up the whole arena of the hidden, the other side of human life which can be reached, possibly, by shrinking or taking a negative approach rather than the positive or expansive way. In painting, for example, Koreans put more emphasis on the background, the space, rather than the foreground or the drawing. Traditional Korean music can best be played and appreciated when the various staccato, the silent moments, can vividly be activated.

Koreans thus are accustomed to minimize their emotional expressions. Korean women, to some extent men as well, may be the best experts in not expressing their emotions overtly. Whether they are happy or sad, or in a quandary, they usually show a half smile. Lee Gieu Tae

(Ibid:340) again introduces a story from the Memoir of Emil Martell, a French principal of the Law and Language School at the end of the Yi Dynasty; "The Korean housemaid asked me for three days' leave. I asked why. She said, in a shy gesture with a half smile on her mouth, her husband was dead. I was almost stunned to fall down but this woman was smiling. When she came back after the funeral, she was smiling again while expressing thanks for my help for the funeral. I had no idea at all which was which." Lee tells his own story. When he visited Germany he had to pass a sad message to a Korean woman living there. The message was that her only sister in Korea was dead. The two sisters lost all other family members including their parents in the Korean War and survived the hard times after the war. "We sat on the table. When I said her sister in Korea was dead, quite contrary to my expectation, she watered her eyes slightly with some spasms on the brink of her mouth, eventually she made a smile. But underneath the table, I could sense her handkerchief held by both hands was tearing away." (Ibid:339)

Dependency

In such an ambience, it is natural for Koreans to be dependent on the "bigger ones." Koreans are essentially dependent beings. In no moment of one's life or of Korean history, do they live as independent beings. Whenever they encounter an unusual moment of exclamation or fear, they cry "Oh! mother!" instead of the "Oh! my God!" of the Westerners. The 'mother' in Korea is the very root of the ties to dependency. Korean children have been reared with virtually no separation of their flesh from their mother until weening. So the children's totality depends on their mother, the mother to the father, the father to his ancestors, the populace to the gentry, students to their teachers, employee to the boss -- the chain continues on to the final mother, the earth or nature. They are not simply passive dependents, they also are the active seekers of being dependent, because without it they lose their foothold. For their personality, understanding, desire, responsibility ... for everything, they project to and depend on their reliances, and in turn nullify themselves. But this dependency is not one sided. Simply

because one-sided dependency is impossible just as one-sided love is limited. So they depend on each other in reciprocal ways. Probably it may be better to say in a "symbiotic relationship." Actually, this is the basic tie which links human relations and is the essence of being human, which given by the Chinese character means "between men."

Naturally Koreans developed a unique consciousness of being humble to others, especially to seniors. It may sometimes be viewed, especially for foreigners, as cringing. But it comes from the dependency tradition where one respects or upgrades others by degrading oneself, and by upgrading others one can also be upgraded by others already being upgraded. So they consider another's position first, then their own. Thus Koreans developed a unique parlance in which they speak not from their own perspective but from the other's perspective. Subjectivity becomes minimized or nullified in front of objectivity, or rather subjectivity is unified into objectivity. For example, when they have to say "thank you" in an English context, they often say "sorry." This is because the other's position can be assumed to be one of having been inconvenienced by the speaker. So when considering the other's position, it turns out that the speaker is sorry for having caused the inconvenience.

When Koreans have to "apologize" as in English, they say they "regret." From the other's position it must be a regretful thing. In such cases, it can be interpreted that the speaker's situation, be it thankful or apologetic, is already too obvious to be uttered for both sides (they can assume, in most cases, that each knows what has happened). Then what needs to be mentioned is the other's situation instead of the speakers'.

This strong dependency also creates a special relationship between the persons involved, which is based not on rational or legal reliance but on personal or emotive appeal. Koreans usually do not allow different opinions within a group, be it family or other social groups. They constantly seek to conform themselves to the group norm. The strong "we-ness" is also one of the manifestations of such a dependent character. They are accustomed to scrutinize others' feeling or situation, especially of elders. An Oriental adage rightly goes with this; "The one who talks without scrutinizing his senior's face is a snob." So they work, in government, business,

school, wherever, with an attentive consciousness of their seniors. If a senior is still in his office even after the working hour, the juniors usually do not leave their office until the senior says to do so. Even their agonies, sorrows or happinesses are expressed in the milieu of sensing others.

Whole-Set Consciousness

Another aspect of Korean consciousness is "completeness" or "wholeness". Everything should be complete or come as a whole set. Such a disposition also appears in their life style. For example, they prefer to buy books by a complete set of series, be it literature, philosophy, or education. Accordingly, publishing companies prepare to meet such demands and often do not sell a unit book out of the whole series. Consequently, we can see private libraries composed of a number of different series of books without any of the number of the series missing. Such set selling prevails in other areas as well; furniture, utensils, marriage ceremonies, tourism, etc. Dining at the table is also composed of whole sets of different dishes. Koreans are not accustomed to the buffet style where you can choose whatever you want to eat, but to an inn style[73] where they serve more than a dozen, sometimes two dozen, different dishes in every meal, regardless of the number of guests.

Such a predilection may reveal their emphasis more on the form than the content, or the name than the practicality -- which is ostentatious. But it may also come from their unobserved consciousness which has long sought the wholeness into and the unity with nature. This whole- or complete-set consciousness appears even in evaluations of personal careers. Lee Yul Gok, one of the most famous Confucian scholars in the Yi dynasty, joined the Buddhist temple for a short period of time when he was young. (The Yi dynasty adopted Confucianism as the national religion and rejected Buddhism.) Because of this, when he passed the state examination and was to see the King, he was rejected from the reception line. And this flaw haunted his whole career and in his later years he once submitted a resignation because of this

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[73]The Korean inn is a little lower level of lodging than a modern hotel. It is a traditional type of hotel.

(Lee Gieu Tae, Ibid:16).

"Having an assortment of goods" is a common usage, and most Koreans like to have an assortment in almost all areas. The unprecedented educational zeal of Korean people can also be interpreted in this context. University certificates become one item of this "assortment of goods" for a person's career, even for marriage. Now a doctoral degree is an important item of the same consciousness for a professional career.

Twilight Zone

Korean people also have lived "in between," which may have been dictated by the geo-political nature of our history. "In-betweenness" is similar to the marginal zone which also has a similarity to the "twilight zone." This has something to do with temporality. This twilight zone is also related to their views of happiness, life and death.

Seen from China, Korea is located in the marginal area. Yet it is also on the corner of the path toward Japan and towards the outside world. Korean people, therefore, have some marginal characteristics. They are lacking in long vision and have a quick temper -- especially when compared to the Chinese. Merchants are one example. There are few shops which last long. Most of them are caught within a kind of "hit and run" concept. If they make a hit with some lucrative business and accumulate some wealth then they change their business for a more lucrative one. Naturally there are more often than not ups and downs. Such a phenomenon is quite contrary to the story of a Chinese merchant, who, Siu extolled (1957:vii), "for thirty years sold identical wares at the same location without ever varying his price." Other areas like politics, economics, education, etc., are more or less the same. This may be largely due to the unstable social conditions, especially after the Korean liberation. But more deeply it lies in the volatile nature of the people. Throughout the long Korean history, there has been little guarantee for the future. For them the past is unalterable and invariably correct but the future is indeterminate.

Many Happinesses

Korean's view of happiness is quite different from that of Western people. "Dahaeng" which literally means "many happinesses" and is most commonly used as a fortunate state of happiness, is actually used not as a positive state of happiness but as a counter-negative sense of happy state. This means that the present state, however miserable it may be, is fortunate and happier when compared to a supposedly worse state than the present. Koreans are accustomed to such ancient precepts as "the tenth overflows, the ninth is sufficient," which means that superfluity is worse than lesser sufficiency. Thus, when they buy a rice field, the buying unit went as nine, nineteen or twenty-nine Mazigi[74], rather than ten, twenty or thirty as in decimal units. (Lee Gieu Tae, Ibid:49) The important distinction made here is the difference in meaning between nine and ten.

To try to feel happy with the present situation as it is or to seek sufficiency when it is not enough, may appear to the Westerner as a passive or pessimistic attitude towards life. But there is also a wisdom that has long been preached to Korean people; "the moderate or ascetic life is always better." Their long cherished virtue of poverty and rectitude among literati also comes from this tradition. The Korean view of happiness, therefore, is not directed toward ever-escalating and future oriented happiness but lies in negating unhappiness and in a present oriented one. It can be said to be an intentional negative approach as was the case in Taoism.

Such view is also related to the twilight zone which is neither bright nor dark, and stays not long. The efforts to hold such a twilight zone longer at the present moment appears in many aspects of Korean life -- notably in architecture and arts. The traditional Korean house has about a one and one half step wide eave which allows some buffered space for shade and which protect windows from direct sunlight. This weakened sunlight again is percolated through window paper which is very articulately made. So the light in the room is neither bright white nor dark but a faint grey or quiet bright. Koreans adore an unfinished or half done state in their arts; e.g., flowers half bloomed, mountain covered with fog, women with gossamer on.

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[74]One Mazigi is equivalent to about 648 square meters.

And they appreciate such half bright objects as the fog, moon and cloud.

"Self sufficiency in insufficiency," "satisfied with the unfinished," "happiness within the limits of unhappiness" ... all these may be the products of a long sad history, but also they are the very underlying power which enabled Koreans not only to survive but also to be a people of optimism through perseverance and renunciation of their miserable state. Among many catch phrases for wishing good luck, there is a word "Gil Da Heung So" which means "many fortunes and few unfortunes." They probably did not expect entire happiness without unhappiness at all. Perhaps what Thucydides (in Siu, 1957:127) said may be true; "Of all the manifestations of power, restraint impresses men most."

Life and Death

The twilight zone which embraces dark and bright and also exists in "in betweenness," is extended to the Korean view of life and death. They do not think that death is the final end, nor do they strongly believe in life after death. Yet, in a very unique way the dead are present among the living. Traditionally, when parents died, the descendants made an ancestral shrine in their house. Whenever they come in and out of the house, they have to report to the shrine. If they are going out overnight, they have to light incense and show big obeisance twice. They do the same thing when they come home. (Lee Gieu Tae, Ibid:76) The deceased parents can meet with the living descendants on every big holiday and their day of death, and also live in their shrine with the living family members. Women are not allowed to cross the front of the shrine and within hearing distance of the shrine, even walled, they have to whisper to communicate. If a young son creates a misdemeanour, the father gets into the shrine and tortures himself by flogging. (Ibid:77) In this way Koreans create a buffered space between life and death.

The word "dying" is one of the most commonly used words in Korea. They use the word in almost all emotional and sensory expressions; beautiful, ugly, hungry, hot, sweet, cold, love, hate etc. It is used as an adjective when you need to exaggerate the situation a little bit, not necessarily the extreme state. In fact, it is used too often to be the extreme case. In a word,

they are living with, or in the state of, dying. Life and death are mixed together and coexist in Korean life. Even ogres in Korean legends are not always eerie as they sometimes wrestle or drink with people, and often make mistakes. There are very good and humane ogres as well. In worshipping their ancestors, Koreans believe the spirits eat, drink and even smoke.

Even the funeral ceremony is held with mixed feelings as death is considered a natural event. There is the sorrow of the bereaved family members and also the hilarious mood among the people who came to provide condolences and to help in the funeral as relatives, friends or neighbors. On one hand there are cries, on the other hand there are clamours of the people who are drinking, playing cards, making the coffin, setting bonfires in the front yard, etc. Still in another corner there is a group of pallbearers who rehearse the funeral song, and some of them are making a deal with the sons-in-law of the family for some drinking money[75].

In a word, the funeral is like a big festival, except for the sorrow of the bereaved family members. The principal mourners are not allowed to sleep during the funeral, which lasts at least for three days and, sometimes, according to the family condition, five or seven days. The clamours of the people who also stay overnight is in fact to help the principal mourners to keep awake during the time. And there may be another psychological reason: that it is intended to dilute not only the sorrow of the family members but also the fear of death. There is an artistic blend of sorrow and joy, happiness and unhappiness. If you hear the sound of a funeral song when a bier is passing a village on a mountain path toward the tomb, its plaintive melody is so touching that you cannot help but having tears fill your eyes. Yet the words are so comic and humorous as to evoke smiles on your mouth.

One unique phenomenon is that after paying the necessary rite to the deceased (twice big obeisance), the guests should present their condolences to the principal mourners who are standing besides the dead by paying one and half a big obeisance to each other. In this case,

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[75]It is not for an economic interest but as a playful fashion because they believed that practice of charities, even by other family members, would help the deceased spirit going to heaven. It is a custom that pallbearing is voluntary and without charge at all, even though it is different in urban cities nowadays.

regardless of the social status or class of whichever side, they exchange the equal obeisance[76], even between the master and the servants. It can be interpreted that they have a philosophy that everyone is totally equal in facing death.

Returning

Birth, "Choolsang" in Korean, means "coming to life." "Choolse," which is success in life or rising up in the social status, means a "coming to the world." It is, therefore, very natural that death in Korean means "returning." They have to return to where they came from. Perhaps Koreans are the people who have the strongest desire to be buried after their death in their home village where they were born and the cemetery of their ancestors is. Even a person who lives his entire life away from his birthplace leaves a will to be buried at his home town. If there is no will, his children know very well where to bury their parents. They want to die where they were from, to make the way of returning easier. One of the most serious abuses used to be "you will die away from your home town." The Korean attachment to their home land is almost inseparable. If they anticipate a possibility of not finding their dead body, e.g., before joining a war, they leave for safety's sake a part of their body, e.g., a bunch of hair, finger nail or blood in one way or another, with which the family members can make a tomb if necessary. In fact, as there were so many wars in Korean history, the episodes related to this empty tomb abound.

This returning instinct also appears, almost without exception, in Korean mythology. For example, a fisherman one day caught an unusually big carp which transformed into a beautiful woman. The man lived with the woman long enough to have several children. But the woman at first warned the fisherman that he should not watch her bathing. If he did, then she had to return. The fisherman, who thought the time lapsed enough to nullify the taboo and because of their children thought she would not go, one day watched her bathing and found a

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[76]In everyday life, only equal persons, in terms of status, share equal greetings with each other.

mermaid swimming in the water. She said "the karma of this world was over" and returned to where she was from, the dragon palace. A few years later she came back to fetch her children and took them with her, so eventually the fisherman returned to his original state.

Another story is almost the same; A heavenly maid (or an angel) descended to a deep mountain valley and was taking a bath. A woodcutter who happened to watch this scene hid the heavenly dress. The maid, who without the dress could not go back to the heaven, lived with the man and begot sons and daughters. The man when relieved from the worry of her returning because of the children, gave the heavenly dress to her. But dressed in the gown she returned to the heaven. (According to Lee Gieu Tae, the Japanese mythology of the heavenly maid is exactly the same to this point. But Korean version goes on to the complete finale. Ibid:80) A few years later the heavenly maid came back and took her children to heaven.

B. In-dwelling between East and West as a Student in Canada

Living in Canada as a student has been an in-dwelling between the horizons of the East and the West, and the search for the meaning of "technology" and "development" as I in-dwelt in the between, brought about a re-visioning. These I have here noted as sub-themes:

- Reflecting on my friend's hope;
- Experiencing the old and the new;
- Dwelling in the becoming of the meaning of education.

Reflecting on the Hope of my Friends

Before I left Korea, one of my friends told me that "I hope after your study that you would not be changed as most others have." I answered "I wish I could." In my answer I implied 'how could I be a different person?' I have no idea how much I have undergone change during the time. But I know all of my friends earnestly wished I would not replace my person with something else.

It may be impossible to stay at one stage of a personal life without change. Education, they say, is directed toward desirable change, particularly of knowledge. But there are many human qualities which we do not want to be changed, e.g., love, trust, friendship, loyalty, personality etc. Of course, when we say desirable change, we include the deepening of these qualities. But in practice, we usually say we do not want these qualities to be changed and want them to remain. Because when we say, "change these qualities," we know it almost means negative change, and as long as these qualities remain unchanged, they have a proclivity to be deepened by themselves. Whereas, when we say change of knowledge or skill, it almost means augmentation of these aspects. I think we are not accustomed to differentiate quality and quantity. With the concept of change which primarily is applied to the aspects that appear overtly or externally so as to be visible and measurable, which is quantifiable, we think we conceptualize the internal qualitative change as well. But here lies a subtle weakness in our language.

What my friends expect of me by being "unchanged" are these quality aspects. I think I have both faces as well; traditional and Western. Seen from the westernized view, I may appear traditional, and vice versa. In what proportion and how these two aspects are "mixed up" or amalgamated is the question we need to ask. But at least I believe that Koreans should not substitute their tradition with the Western one. In order not to do that we need to stand firmly on our traditional ground. In that way Koreans will appear more charming and attractive to the Westerners.

One of the great lessons I learned during my stay in Canada is that Westerners are the same as Orientals in terms of human qualities. In fact, I had a bias that the Westerners were too individualistic and materialistic. To some degree this is still true, but I found precious human qualities in them; kindness, friendship, caring for others, trust, love, etc. My study here for about four and half years now is not a mere means to get the degree. This is my life itself. I learned much and enjoyed much. Education is an endless process and life itself. I do not think my family members have purely been sacrificed: I believe they also have learned much. Of

course, we have been missing each other greatly, but there has always been a hope that we can meet again with great joy. I enjoyed and established many good friendships with Canadians and other students from other countries. This is not at all of least significance for my life than the degree itself. Here lies, I think, the meaning of education as developing human qualities rather than merely acquiring knowledge. We need to seek the true internal power springing out from these human qualities rather than the external power.

Experiencing the Old and the New

I was born and grew up in a very traditional family, and went through the modern educational system from primary school to university. Traditional education, in terms of values, attitudes, behaviours, took place within my family particularly by my grandfather and mother. My grandfather taught me Chinese characters when I was three. But after I got into primary school, the teaching of Chinese took place sporadically. In terms of my behaviour or code of ethics, all family members were very strict in following grandfather's teaching. As a consequence, I learned a so-called new type of knowledge in school, and a behaviour pattern or morality by the traditional system. But there was no conflict for me between these two. Our age group had experienced drastic social changes during our school years and early youth; Liberation from Japan, the Korean War, the April Nineteenth's Student Demonstration(1960) and a Military Revolution(1961).

In terms of behavioural discipline, the Japanese Imperial System was not much different from that in the Korean tradition. But accumulated new knowledge learned through the new school system, which was rational, scientific and democratic, and the social changes, particularly the Liberation and the Korean War, affected us in a way as to shift drastically our way of thinking from the traditional to the modern. Without knowing what the 'modern' really was, we were fashioned by new trends introduced by the U.S. in almost every aspect of our life. In such a context, most traditional ways of thinking were viewed as conservative (which had a negative connotation in Korea during the time) and anti-developmental.

But throughout our social career we began to realize that the strong traditional imprint which took place when we were young remained with us. One example is that most of our generation kept their family in the traditional way, similar to that of our ancestors. At first, when we married, most of us thought that the democratic family style was the ideal, in which women's opinions and rights were respected equally as men's. We learned through texts, and especially through imported films, that the democratic family was the ideal and most civilized way of living. But in reality it did not work out that way. What happened in most cases, including my own, was that after a number of years of struggling with adjustment, we returned to manage a traditional family style. In that way, husbands and wives seemed to have found for them a stable and comfortable life. Men again became the patriarch in their family, and women took on the role of a house wife similar to that which had been carried out by their mothers, grandmothers, and great, great grand mothers. I am speaking here in generalities.

In the process of adjusting, I guess, wives had more difficulties because they, in a sense, had to wipe out the new image of the house wife which was formed during their school years. Whereas men, by contrast, had remained more or less the same.

Now my generation (around fifty now) is viewed by the younger generation as conservative and traditional. In terms of generations, those whose age range falls now between around thirty to forty turned out to be most modernized, which means westernized. And after that generation, fortunately enough (in my view) we can see a revival of the traditional tincture. There may be number of reasons. One of which could be that they (the most westernized group) spent their early childhood during the most unstable period right after the Korean War. But this distinction is only a matter of degree of differences. In fact, most Korean people have traditional and modern characteristics at the same time. And in most cases they did not substitute the traditional values with the Western ones. Oftentimes both characteristics exist together in a very curious way. For example, Koreans do hand shaking but not in the Western style. While seniors stretch one hand, juniors hold it with both hands and

with their back slightly bending. In most public places they give priority to seniors"[11].

I may be, as other young Korean students say, a very traditional man. I wish I could be, because I believe Koreans should be Korean. Of course the traditional Korean man should not necessarily be considered to be the ideal Korean man. But what the "traditional" usually means is not "modernized" which is equated with "westernized." So, frankly speaking, most Korean students, past or present, who are studying abroad, wittingly or unwittingly, tend to want to become Westerners. That was and is their ideal. This is the point that I want to make in the Korean and Western context. What Korean foreign education during the past three or four decades failed to do, and what the hosting foreign countries failed to do as well, was encourage understanding of the Korean tradition. Most Korean students have tried to substitute, as much as they could, their traditional identity with that of the Westerners.

I think we in Korea need to put more emphasis in education on our traditional culture and values. If Koreans have their historical culture uprooted, they may be like fish out of water. A Korean historian said that a people who have lost their nation could survive but a people who did not understand their history correctly could not. Biologists explain that four-fifths of the whole of the energy that the human body produces is spent for mere surviving, e.g., heart beating, breathing, metabolism. This means that even when the body is sleeping, it spends that much energy. If a nation is going to survive, I think, it should spend a big portion of its energy, if not four-fifths, on the preservation of its culture.

The East and West should not be in a race for economic, scientific, technological and military development. That should not be the case even among individuals. But in reality, they are and they think they are. To some extent it may be inescapable. Because in the present world context no nation can survive any longer by itself. But I think that competition is essentially an erroneous concept. There is little hope for the future in endless competition. Particularly for the underdeveloped and developing countries, if they try to follow the same fashion as the

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[11]We use seniority in a relative sense. Thus a seventy years old man becomes junior in front of an eighty years old man.

developed countries, I think, there will be little hope.

Even though we admit that all nations are competing for economic development, each nation can have a better chance by following its own way. Here the third world countries may get some lessons from the case of Japan. They say Japan followed its own way which was based on its tradition. Therefore, they say Japan's economy and technology are not dependent on the developed countries. And Japan is often mentioned as an example of having achieved technological and economic development without distorting its cultural heritage. (Graubard, *Daedalus*, 1980:vi, Rybczynski, 1983) China is now very anxious to introduce Western technology but not its side-effects. (Rosenblith, *Daedalus*, 1983:20) We will see how China handles the problem. Korea, in a sense, has gone too close to the U.S. in adopting technology and an economic system. But in another sense the U.S. system and the Korean traditional system coexist in a peculiar way. I do not think Korea should suddenly reject or turn round on the U.S. system. It appears that the best way to go is to keep a balance between the traditional and modern systems.

Korea does not need to be in too much of a hurry. During the past few decades it has dashed too fast. It is time to ruminate what it has done and to seek wisdom from its tradition. It will be helpful to listen to what Teng, the Chairman of China, said, when he visited Japan early in 1970. Before he came to power he had ridden the Shinkansen[71], and being asked the impression, he said "Very fast!" but turning around he uttered a soliloquy "With this high speed where do they intend to go?" (The Korea Time, Nov. 14, 1985)

Recently, many of the Western scholars have been paying attention to the East, its history and old wisdom. Koreans, in turn, have been so absorbed in adopting the Western way that they are almost on the brink of losing their own heritage. It is time to restore its own history and old values. "Complete returning" as reviewed in the previous section is not what I suggest. Korean education should increase the emphasis on its traditional values as the traditional side has been neglected too much. We can find and re-kindle the wisdom in

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[71]The fastest train in the world.

"oneness" which encompasses dark and bright, many fortunes and few unfortunes, even life and death.

I have to confess that I learned, during my study in Canada, much about the East, my own roots, especially through the Chinese classics which I could have learned in Korea. In fact, that gave me a peculiar feeling -- as if I were buying a Korean product in a department store here. Furthermore, Korean education does not place much emphasis on our own classics (including Chinese) except in the Departments of Chinese Literature. So in a sense, Korean students are deprived of chances to learn their own tradition. Not only because I learned our own tradition but also by learning others, the West and the Third World, I have come to understand more clearly my own.

Dwelling in the becoming of the Meaning of Education

Human beings exist "in between," that is, "in becoming" or "being on the way." Therefore, the meaning of life, the true meaning of it, lies in the dialectic of the "is" and the "not yet." The "not yet" is meaningful only in the sense that it allows the way, for without the not yet there will exist no way, no coming to be. The one who sees the not yet as end, cannot achieve the end, for there is no end of ends. Only the one who finds meaning in the way can achieve the end, for he can forget the end. Thus the true end can be achieved only by forgetting the end. By forgetting the end, the way can be realized, for way exists where there is no end.

Human being is living being; at no moment does living stop. Where living exists, no end exists, because the end is, death, final which is incommensurable with living. That one finds meaning in life only in the way is not only because being is becoming, a way, but also because in the end life finds only the end. Those who see the end cannot find the meaning of way, for the end nullifies its existence, and the end is mere nothingness.

One who sees life as a coming to be, a way, can overcome the limit of end, for he does not care about the end. Aging is one example. Those who are concerned about aging are getting old, for they become a victim of time. But those who find meaning in the becoming never get

old, for to those who see no end the end does not exist.

There appear to be two kinds of people; the end-oriented and the way-oriented. To the former, the coming to be, the way, is understood as process, and the meaning of process can be found only in the end, which itself becomes a beginning for a new end. They think that progress is that in which a succession of ends becomes a process for a bigger end. But this is a simple connection of severed stages, not a smooth becoming, not a flow, not a way. All the processes which lie in between these stages become mere means for the ends, and these processes are counted and evaluated by the criteria of ends. Here, the meaning of process is severed from being - succumbed, nullified and subsumed to the end. And each end becomes merely a means for another end.

To the latter, the way-oriented, way itself becomes an end. Thus one makes way an end. For him, true end lies in the way. In the flow of becoming, there need be no ends, nor new beginnings, because it is unending way to the final end. Thus, even the final end succumbs to the way, making it a part of Nature's Way.

It is like mountain climbing. To the end-oriented, only the top counts. The process in between means less. He sacrifices or ignores the way for the end, the top. Without climbing to the top, he cannot be satisfied. At the top, he expects to find great joy, at the sacrifice of the way. Because the way is sacrificed, it turns out to be drudgery. Furthermore, he anticipates that the joy will be greater because of the sacrifice of the way. But there are dangers: when he stops in between, he finds only disappointment; even at the top, where he experiences sudden expansion of joy, he comes to realize that there is yet another bigger mountain.

But to the way-oriented, every step of climbing yields a new horizon, extended appreciation of beauty. The logos of the expanding horizon invites him to follow the natural way of climbing. Every step is accompanied by joy and excitement, which, in turn, alleviate the hardship of climbing. The top gives no special meaning except as another extension of horizon. So the way-oriented can be drawn into the beautiful scenes not only at the top but anywhere in between.

As life is a way, so education could be. Education could be extended to where life goes, that is, life long education. Hence, an educated man is one who is ready to follow this unending path, that is always a way. Thus, a meaning of education lies in the way not in the end. A true Samurai tries not to see the end, the static target, but tries to see the flow of the way. In the way he can see himself. Education, as a way, finds its meaning in oneself, not in the external to oneself. Education, as a way of cultivating one's personhood, finds no end but dwells in an on-going becoming. Here the end of education is submerged in the way of education, because the way, unending change, is nature's great law. End rejects process, but way embraces end.

The East and West followed different ways. In a fuller sense, both can be viewed as Yin and Yang. They are contradictory but in need of each other within the way of unending development. They are different but both are pregnant with the other's seed. The East has had from the beginning the seeds of the West, and the West the seeds of the East. The relationship need not be rejection. In fact, the rejection occurs in an act of embracing. Essentially, any individual, be he in the East or the West, is the same. Each has both within oneself. To reject either side within oneself is to reject one's total being. These contradictory aspects, seemingly rejecting each other, should be developed toward a greater embracing. Particularly in facing the East, the West needs to loosen its rational, scientific and technological way; the East needs to be tolerant of the Western way. Otherwise the West, as Yang, cannot open itself to the East, and the latter, as Yin, cannot embrace the former. Such openings and embracings should occur within each individual, allowing the coming into being of a more integrated being. So understood, the coming into being of integrated human beings seems to be an unchangeable touchstone, any time and any place in the world of education. The meaning of education seems to lie no other place but in this human development.

In the developmental context of the East and West which was re-viewed, particularly when this development is situated in educational endeavour, ways of both the East and West call upon us to regard them as complementary aspects, as was in the snowball, or in a grinding stone of square points as was in the rolling stone - indeed, this seems to be the way toward the

development of a more fully rounded personality.

C. A Renewed Understanding of Educational Development

In chapters two and three, we brought into view the background and the present situation of Korean education. We saw how KEDI, as a mammoth national educational research institute (in practice, if not in its form), reflects the various culminating features of the strivings of Korean education in the last three or four decades. Bluntly, it can be said that Korean education, in almost all aspects, has tried to implant the United States style of education into Korea: its ideology, system, research methods, curriculum, instructional methods, evaluation, etc. The main reason was that Korean educational scholars and researchers adopted the American system as the ultimate criteria for Korean educational development. Such is the prevailing phenomenon we saw when KEDI is portrayed.

In reviewing KEDI, I tried to reveal the way of this happening and what Korean education came to be. If my emphasis seems to expose the negative aspects of Korean education and KEDI, it should not be viewed strictly negatively. Rather, it should be viewed as the way an understanding calls upon us to the realm of the not yet by seeking ways to complement the deficits of Korean education. In the negative are the seeds of the positive.

The next two portrayals bring to light essential problems facing Korean education. Lee Oh Deuk, who has long been a principal in rural primary schools, speaks of his own experiences in "What Should We Do With These Children?" (1977). He observed that most primary school children in the rural area graduate with strong feelings of inferiority about having been born and reared in the rural area. The result is that they hate their parents and their poor situation as farmers. Consequently, most children on graduation leave for cities either to enter middle school or to get a job. He questions, "Is it a right education?"

Another portrayal is that of a reporter of The Korea Time (Jan. 3, 1986) who undertook an interview with a mother whose daughter got the highest mark at the preliminary entrance examination for the 1986 university school year. She explained her daughter's daily

routine throughout the whole year. The mother wakes her daughter up at 4:00 in the morning. After having beakfast her daughter goes to school with a lunch box. In the evening the mother delivers two meal boxes to the school; one for supper, one for the night. The reporter did not ask exactly when her daughter went to bed. But it is not difficult for most Koreans to assume that it must be around 12:00 midnight, because four hour's sleep for the twelfth graders who are preparing the examination is very common[9]. The mother said that her suffering -- waking her daughter up in the early morning, preparing three meal boxes, delivering them to school -- was a physical labor which was endurable, but her daughter had added a spiritual pressure to the physical pain. The most painful moment, she said, was to wake her weak daughter up when she was still in sound sleep. She comments that the "hell" of entrance examination is a thing most parents can hardly endure.

It is common in Korea that the battle -it is as a military effort- to achieve well on the entrance examination is not only for the student but also for the whole family. This entrance examination, as we have reviewed, is not an event affecting only the moment of entering university. It has a most powerful effect on Korean education extending through the whole system from primary school to university. Korean students of whichever level thus have been deprived virtually of their chances for activities other than school work. And because school work is designed and directed toward that examination, it is composed of pieces of information which need to be memorized by students and serves to make school work for most of them, like a way of climbing a mountain, drudgery and a hateful thing to experience. The reasons lie not solely in the educational policy and curriculum. The deep roots can be found in the social system and the basic way of life of the people. Education can not escape from what such a way spawns.

The essence of the educational and social problem, then, lies in the prevailing educational development philosophy which Korean educators have overwhelmingly adopted

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[9]There is a widely known common denominator; "Sa Dang Oh Rag" (four passes five fails) which means those who sleep four hours a day would pass, but five hours would not.

from the West. The single criterion from outside the country for development in Korea, in Poster-Carter's word (in Chap. 4), '... became a question of how 'we' [Koreans] can make 'them' [ourselves] more like 'us' [Westerners].' When we review KEDI and the Korean context, we can find those aspects of the predominant paradigm, which the 'third world dissenters' criticize. Such criticism is just in the Korean situation. In the process of adopting the predominant paradigm, Korean educators did so at the cost of destroying the traditional values which appeared contradictory to the paradigm. The programmes for N-Achievement and Positive Self-Concept are examples.

If education fails in allowing students to be concerned with the meaning of human life, it is nothing but a delusion. If we accept the fact that no human being ever completely succeeds in finding the meaning of life, the purpose of education should be grounded in the search for that meaning itself. We have experienced in Korea when someone notable suggests a plausible answer, all rush toward that plausible direction, unmindful of the collective delusion. If some insist that it is better to have a plausible direction than to have nothing, it would be not much different from asserting that it is better in a desert to see even a mirage than nothing. They insist that even a mirage would encourage hope and strength which otherwise would tend to diminish until we find a real oasis. But in the long run, rushing toward a mirage is unreflective of the content within its horizon.

When we see a mirage, we often turn our head away from the possible despair which eventually faces us. Given the present hope, the possibility of despair is not extant, and to think of that possibility is viewed as the business of a coward. Furthermore, if it were a mere mirage, eventually despair would come before us, the ones who see it as real dangerously extol the human will to overcome the despair again. They think that despair is the vital force which brought the development of human civilization. The pioneering spirit, adventure, exploring... these are, they appreciate, the expressions of human will to overcome such despair.

We have seen in human history that there were constant ups and downs of numerous nations, confusions of different ideologies, conflicts of religions, ever increasing

differentiations of disciplines, etc. In this context, development can be said to have been defined as newness, made supreme by modernization with its high speed and the massive scale of changes. Any change that occur toward newness (modern), with high speed, and on a massive scale are viewed as development. What history teaches us, as Toynbee puts it, is that it does show us what was wrong if not yet what is right (about the meaning of life). We have seen what was wrong with development - with the development of technology, science and education.

What was wrong in the Korean context was that most Korean intellectuals adopted almost unconditionally the Western tradition as the criterion by which all aspects of Korean society are to be evaluated. The underlying assumption is that whatever the Westerners have developed is the "developed" and therefore "better." To most of these intellectuals, Korean tradition and history became "retarded" and "underdeveloped," and therefore, shameful. Furthermore, traditional values came to be understood as hindrances to development. Individual positive self-concept was appreciated but historical positive self-concept or traditional positive self-concept was not. The primary school graduates in the rural areas who leave their home villages are the result of such trends.

To these intellectuals, Korean history is shameful because Korea has been invaded more than a thousand times but has never invaded others. In such a concept it is implied that only a nation whose history was one which attacked, controlled and exploited others deserves merit. Indeed, Korean history is a history of shame not because it has never invaded others but because the people for thousands of years have tried to live a life that knows what is shameful. They considered that a person who did not know shame, the unabashed, was less than a beast.

Some women's liberation groups advocate that Korean women in the past were unprecedently maltreated by autocratic men under the parochial system. They overlook the fact that there are few countries in the world, other than Korea, where mothers even after their death, were respected and received unprecedented filial duty by their sons. There were no autocratic sons who would dare disobey their mothers. It is true that Korean women in the

traditional society were forced to sacrifice for their children and family. It is very true even today. But it is also true that after their sacrifices they received unprecedented rewards, perhaps truer inner happiness.

In almost all aspects of human society problems seem to come from a predilection which views any event from one side only. Korean education is without exception. Most controversial points in discussing Korean education have often resulted from a clash between two different perspectives. Now it is time to seek wisdom which can embrace both perspectives. It may be a way of sublimating the tradition into modernization or vice versa. We need to rethink what Michael Apple (1979) defined as curriculum; "Curriculum is aimed at emancipation in the social present, through critical awareness."

D. Suggestions for KEDI

This study hoped to understand a concrete situation in a broader context. Its essential interest was in a deeper understanding of "educational development" with which KEDI might chart its future. In the study, we have reviewed the KEDI situation in the context of the ways of the East and the West. On the way we explored "technology" and "educational development."

By portraying KEDI in its real life situation and by disclosing it in a broader horizon and by situating it in our questionings, the study attempted to arouse the sense of import and insight of the problems for Korean educators and for others. The suggestions that follow are more general than specific. The most important and general suggestion for KEDI which flows from the study is that it seek wisdom which can accommodate both Korean and Western traditions in its educational research endeavours.

Two sets of suggestions for KEDI follow:

1. KEDI might seek ways of understanding education or educational development which enable;

   - enhancement of human inner qualities that promote development toward an openness

that allows a coming into being of a whole-rounded personality;

- accommodation of Korean traditional values which deserve to be preserved;

- students to seek the meaning of life;

- consideration of education as a meaningful and enjoyable way of life that transcends understanding of education as mere means.

- understanding of education as an unending living and becoming.

2. KEDI might seek ways of understanding "organization" which enable;

- political support to allow KEDI to carry out its own mission unimpaired;

- a reconstrueing of the relationship between centralized and decentralized educational systems;

- ways of compromising or complementing Korean and Western traditions;

- a re-visioning of education that allows consideration of alternative ways for educational research and curriculum development;

- questioning the seductive power of the R & D model;

- strengthening of the inner integrity of KEDI as an educational research organization.

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